

A photograph of a man in a high-visibility orange and navy blue uniform hugging three children. The man is on the left, leaning towards the children on the right. The children are a girl in a blue shirt, a boy in a grey shirt, and a younger child in a bright green shirt. They are standing in front of a white utility vehicle. The background is a dark, horizontally-slatted wall. The text "empowering communities" is overlaid on the image, with "empowering" in a white script font and "communities" in a bold orange sans-serif font.

*empowering*  
**communities**

**Your power, your say**

**2019-24 Tariff Structure Statement**

April 2018

# Contents

	About this Tariff Structure Statement	04
1	Executive summary	05
2	Purpose and context	11
	Purpose	12
	Our commitment to cost – reflective pricing	15
3	How we engaged to develop this TSS	17
	Our engagement process	18
4	Our customer classes	21
	Our customer classes	20
5	Assigning customers to customer classes	24
	Default charging assignment	25
	Network Charge reassignment	26
	Opt-in charging assignment options	26
6	Our proposed network charge structures	27
	Network charge parameters for 2019-24	28
7	Our pricing proposals methodology	35
	Rule requirements	36
	Approach to price-setting	39
8	Proposed user pays charges	44
	Ancillary network services	45
	Metering services	45
	Public lighting services	46
9	Compliance checklist	47
	Glossary	49

## List of attachments

Overview of this TSS

**Attachment 1** – Indicative NUOS Pricing Schedule of this TSS

**Attachment 2** – Indicative Ancillary Network Services Pricing Schedule to this TSS

**Attachment 3** – Indicative Metering Services Pricing Schedule to this TSS

**Attachment 4** – Indicative Public Lighting Pricing Schedule to this TSS

**Attachment 5** – Network tariff assignment and reassignment policy

**Attachment 6** – How we design our tariffs

# Have your say

Customers are invited to read our Tariff Structure Statement and provide feedback to the Australian Energy Regulator via their website at aer.gov.au or to us directly using one of the communication channels detailed below.

## You can provide feedback on our plans in a number of ways:

**Email** [yoursay@essentialenergy.com.au](mailto:yoursay@essentialenergy.com.au)

**Post** Manager Customer Service  
Essential Energy  
PO Box 5730  
Port Macquarie NSW 2444

**Phone** 13 23 91

**Web** [essentialenergy.com.au/yoursay](http://essentialenergy.com.au/yoursay)

**Essential Engagement**  
[engage.essentialenergy.com.au](http://engage.essentialenergy.com.au)

## Sharing your views. Our customer engagement is always on, with many platforms:



Essential Engagement



Email



Twitter



Facebook



Phone



Face to face



SMS



Website



Letters





# About this Tariff Structure Statement

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This Tariff Structure Statement (TSS) demonstrates how we have adopted the network pricing objective and complied with the associated pricing principles set out in Section 6.18 of the National Electricity Rules (NER). The compliance checklist at the end of this document shows where we have addressed each requirement.

The Australian Energy Regulator (AER) will assess this TSS and make a draft, then a final decision before any pricing structures decision and associated AER network charges are applied from 1 July 2019. Essential Energy's initial Tariff Structure Statement (TSS) for the period 1 July 2017 to 30 June 2019 was approved by the AER in February 2017.

This second TSS will replace the previous TSS and applies to the period 1 July 2019 to 30 June 2024.

## TSS requirements

As set out in the NER, the network prices that Essential Energy, as a Distribution Network Service Provider (DNSP), charges each customer should reflect our business's efficient costs of providing those services to that customer.

We must demonstrate compliance with the following pricing principles:

- > Each network charge must be based on the Long Run Marginal Cost (LRMC) of providing the service. LRMC is a measure of the future network costs that would be incurred by our customers requiring one more unit of energy or by adding one more customer to the network, or the costs that could be saved if our customers required less energy.
- > The revenue recovered from each network charge must reflect our total efficient costs of providing services to the customers assigned to that plan.
- > We must consider the impact on consumers of changes in network charge plans and develop plans that customers understand.
- > Our network charge plans must also comply with any jurisdictional pricing obligations imposed by state or territory governments.
- > The revenue we expect to recover from a tariff class must lie between the stand-alone cost of providing the service to the relevant customers and the avoidable cost of not providing the services.
- > We must adhere to side constraints that limit annual price movements within a tariff class.

## Structure of this TSS

We have structured this TSS to set out our network charges design, assignment and rule compliance in an intuitive fashion that steps through the pricing development process from how we have built the network charges to how customers get put onto or choose a particular network charge. We do this for network services first (called Standard Control services under the AER's classification), then look at our various user pays services (called Alternative Control services under the AER's classification).

This TSS is supported by, and should be read in conjunction with, the following attachments.

Overview of this TSS

**Attachment 1** – Indicative NUOS Pricing Schedule of this TSS

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**Attachment 4** – Indicative Public Lighting Pricing Schedule to this TSS

**Attachment 5** – Network tariff assignment and reassignment policy

**Attachment 6** – How we design our tariffs



# Executive summary

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# 1



# 1 Executive Summary

This TSS explains Essential Energy's pricing strategy, which governs how we propose to set our network charges over the 2019-24 regulatory period and how we will assign our customers to these charges – or allow customers to choose their charges. It also presents our indicative network charges for this five-year period.

Pricing structures that better reflect the costs of providing network services to customers play an important role in encouraging customers to utilise the network in a more efficient manner. This in turn will promote efficient network investment and help in the reduction of long-term average prices.

Our previous TSS considered guidance and feedback from the AER and our stakeholders and was a major milestone on our pricing reform journey. Its initiatives included:

- > Changing our Declining Block Tariffs for Small Customers to a flat rate. The flat rate structure is easier for customers to understand, ensures that both high and low usage customers pay for residual costs in proportion to their use of electricity and is generally better aligned with retailer offerings.
- > Changing the charging windows for peak times for customers with interval/smart meters to remove morning peak. This ensures that our charging windows are aligned with our network demand pressures, rather than our legacy metering technology, and thus provides customers with more cost-reflective pricing.
- > Introducing differing rates for peak and shoulder charges.
- > Introducing new Demand prices as an option for Small Customers.
- > Making Time of Use prices the default for new customers and existing customers getting a smart meter upgrade from 1 July 2018.

Our proposed TSS for the 2019-24 regulatory period builds on our previous TSS. It takes into account the changing energy market, including the connection of increasing numbers of innovative technologies to our network, and responds to customer and stakeholder preferences about pricing reform which emerged during our engagement with them for this TSS.

## Customer and stakeholder engagement

We released a Draft TSS for customer and stakeholder consultation on 9 February 2018.

Our customer and stakeholder engagement and research for the Draft TSS was built on the engagement, customer research and lessons we learned from our previous TSS development process. It included testing preferences and options and meetings with our Pricing Working Group<sup>1</sup> (see Pricing working group engagement report by Farrier Swier which is contained in [Attachment 4.5](#) to our Regulatory Proposal 2019-24 for further details on this).

The overriding message from this engagement was that, if Essential Energy has to move to more cost-reflective charges, the majority of our customers and stakeholders strongly prefer a slow and careful transition and for customers to be given options. Since the release of our Draft TSS, some stakeholders have indicated a preference for a faster transition to more cost-reflective pricing.

Customers' preference for a slower pace of network pricing reform reflects the difficulty our smaller customers experience in understanding electricity pricing and their call for retailers and distributors to provide more education and/or engagement as part of the network pricing reform process.

There was also confusion about the term 'tariffs' (often seen as a tax), so we have used the terms 'network charge' or 'network pricing' wherever possible throughout the TSS and other network charge communications.

***“Information needs to be clear. People need to be more informed in order to make choices.”***

Broken Hill customer

***“It should be done slowly and carefully.”***

Customer representative

1. The invitees to the Pricing Working Group (Sessions 1 and 2) included members of PIAC, ECA, EWON, Cotton Australia, NSW Irrigators Council, Origin, Red Energy, AGL, Dairy Connect, CCP, AER, Total Environment Centre, Alternate Technology Centre, St Vincent de Paul Society, Essential Energy and Farrierswier.

# 1 Executive Summary

## Responses to customer and stakeholder feedback on our Draft TSS

Customers and stakeholder feedback heavily influenced our current TSS in which we took significant steps in our journey to cost reflective prices. We:

- > Changed our declining block pricing plans to a flat price
- > Refined our time of use prices and made them the default for all new customers and those upgrading to an interval meter from 1 July 2018
- > Introduced an optional demand prices for all customers on our network.

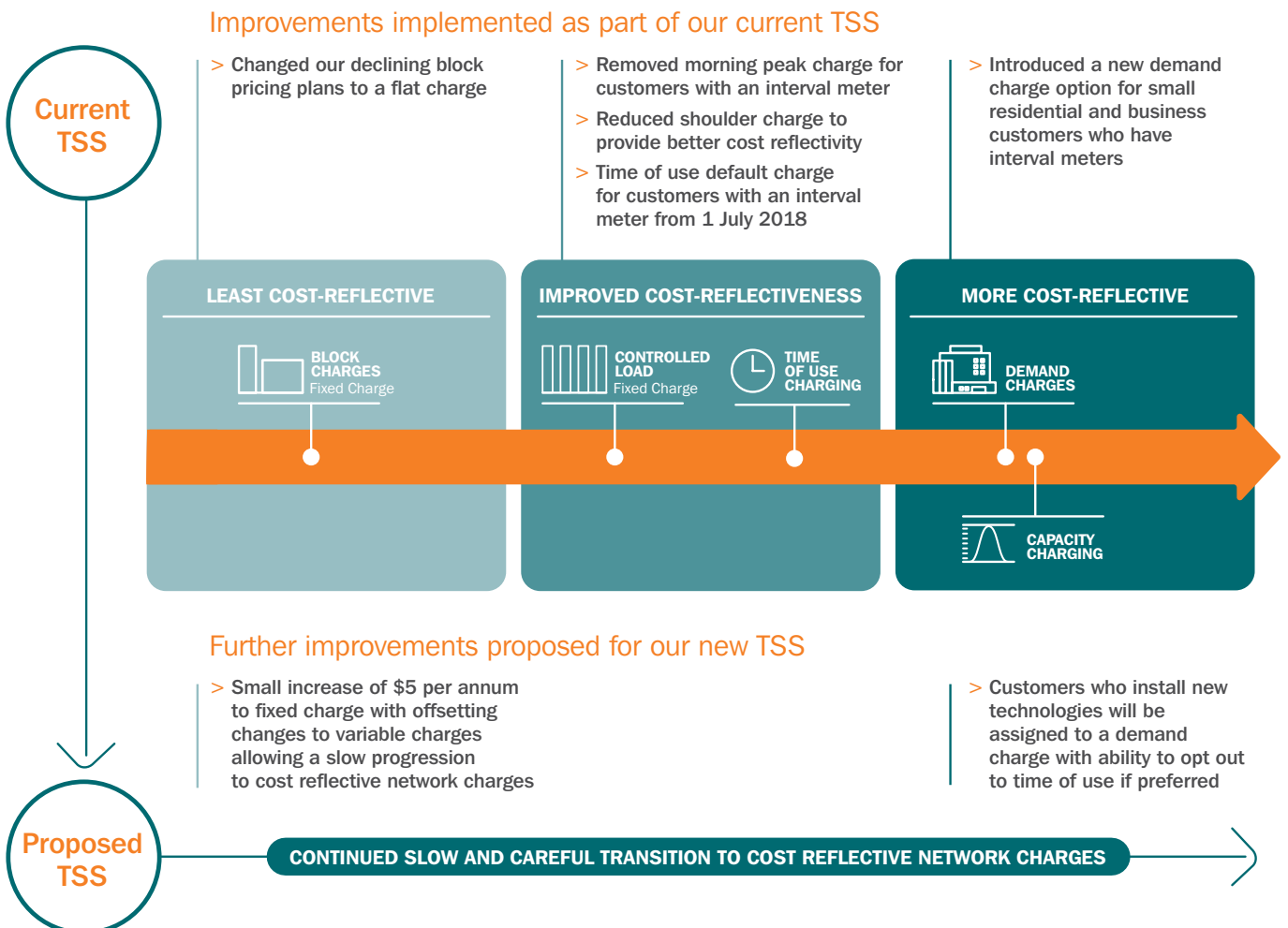
The current TSS included many improvements and provides a sound foundation for this TSS to improve further.

We have considered feedback received from our customers and stakeholders in finalising this TSS and their desire to see a longer-term strategy for tariff reform over the period. In this TSS, we are proposing an approach to the timing of network pricing reform that carefully balances the requirement for more cost-reflective network charges with customers' concerns about the financial implications of this change for them.

We are also proposing a proactive approach to increase the number of customers that move to more cost-reflective prices over the period by:

- > Providing cost-reflective prices that are attractive to customers so as to encourage increased uptake
- > Working closely with retailers to encourage the adoption of these more cost-reflective prices
- > Increasing network charge education to advocate the benefits of cost-reflective pricing
- > Initiating trials to promote uptake of the more cost reflective charges, and assess the customer and network benefits.

Our proposed reform approach is intended to minimise the risk of customer price shocks by distinguishing between new and existing customers and creating financial incentives for the take-up of more cost-reflective pricing options. Our approach also supports the uncertain pace of the smart meter roll-out for Residential and Small Business customers across our network, which has been controlled by electricity retailers under Power of Choice reforms introduced on 1 December 2017.





# 1 Executive Summary

TSS Requirement/ Section	Current TSS (2017-19)	Proposal in 2019-24 Draft TSS	Proposal in this 2019-24 TSS
<b>Purpose and context (section 2)</b>	Provided a foundation for future progression to cost-reflective prices.	We developed and consulted on our cost-reflective pricing principles. The Draft TSS presented these principles.	Stakeholders requested further information on our longer-term strategy. We have updated our TSS to include this together with business initiatives to promote the principles and approaches set out in this TSS.
<b>How we engaged to develop this TSS (section 3)</b>	Our current TSS was heavily influenced by stakeholders with significant changes made based on their feedback.	<p>We developed our Draft TSS based on feedback from:</p> <ul style="list-style-type: none"> <li>&gt; Customers</li> <li>&gt; Customer advocates and industry groups</li> <li>&gt; Retailers</li> </ul> <p>The Draft TSS was released for consultation on 9 February 2018.</p>	Our customer engagement program continues as we work with the AER and customers to finalise the TSS.
<b>Our classes (section 4)</b>	Our customers are grouped into five classes for charging purposes.	Retains our existing five classes, as customers requested.	Retains our existing five classes, no further feedback received.
<b>Assigning customers to customer classes (section 5)</b>	<p>Small Business and Residential customers are assigned to either Anytime consumption charge or Time of Use charge, depending on their meter type.</p> <p>Large Customers (&gt;160 MWh per annum) are assigned to a cost-reflective network charge.</p>	<p>No changes to our network charge assignment approach for existing customers.</p> <p>Minor changes to default assignment proposed for customers installing innovative technologies (solar, battery storage etc.) that will potentially place additional demand on our network. These customers can opt-out of their assigned network charge to a less cost-reflective one.</p> <p>Larger-scale innovations such as microgrids will be provided with specific pricing solutions.</p>	<p>Customers and stakeholders generally supported our default charging assignment proposal. Some, however, were concerned with the default option for customers installing new technologies and the lack of options for large customers (&gt;160MWh per annum).</p> <p>Following consideration of this feedback, we have retained the default charging assignment set out in our Draft TSS.</p>

# 1 Executive Summary

TSS Requirement/ Section	Current TSS (2017-19)	Proposal in 2019-24 Draft TSS	Proposal in this 2019-24 TSS
<p><b>Our proposed network charge structures (section 6)</b></p>	<p>Our current charges generally comprise a fixed daily (network access) charge and a consumption charge. The more cost-reflective network charges also have a demand charge.</p> <p>We offer a range of charges within each class for Residential and Small Business customers, ranging from less cost-reflective (flat rate consumption-based) through to more cost-reflective (demand-based).</p> <p>All Large Customer network charges are cost-reflective and demand-based.</p> <p>Seasonal or locational charges are not available.</p>	<p>We propose not to introduce any new network charges and to maintain existing structures in this proposed TSS.</p> <p>Our approach reflects little support from customers and stakeholders for more complex charges, such as seasonal or locational pricing.</p> <p>There were mixed views on demand charging methods, capacity charges, and critical peak charges.</p> <p>Customers supported our existing charging windows, including the peak component of demand pricing, and increasing incentives for customers who adopt cost-reflective charges.</p> <p>We will slowly increase the fixed component of Small Customer network charges as part of the progression towards aligning residual costs and revenue.</p> <p>We have committed to conducting network charge trials in the next regulatory period to better inform our future pricing decisions.</p>	<p>Customers generally supported the charges and structures in the Draft TSS with support for increased and enhanced education on network charges.</p> <p>Stakeholders provided conflicting views, and some highlighted the difficulty in customers being able to reduce or change the way they use energy and noted choice between pricing options was important.</p> <p>There was limited support from stakeholders for a \$5 per annum increase in the fixed charge, however 76 percent of customers either slightly or strongly supported this.</p> <p>After considering the feedback, we are proposing to maintain the approach outlined in the Draft TSS, however we will provide a stronger commitment to conduct trials and customer testing.</p>
<p><b>Our pricing proposals methodology (section 7)</b></p>	<p>The Long Run Marginal Cost (LRMC) component of each of our network charges was calculated using an average incremental cost approach with a time horizon of five years. Marginal costs were based on estimates of augmentation-related capital expenditure and growth-related operating expenditure.</p> <p>We have addressed the AER's recommendations to apply a 15-year time horizon and include relevant replacement capital expenditure in the LRMC calculations used in our network charge formulation.</p>	<p>Stakeholders generally supported our LRMC approach but requested we explain what costs are included in the marginal cost 'bucket'.</p> <p>Some stakeholders suggested it may be appropriate to recover residual costs in the consumption charge only. In response, we have allocated residual costs to both the consumption charge and the fixed charge across our network prices.</p>	<p>We received limited feedback on our LRMC methodology. We are not proposing any changes to the methodology outlined in our Draft TSS.</p>

A glossary of commonly used terms through this TSS is provided on page 49.

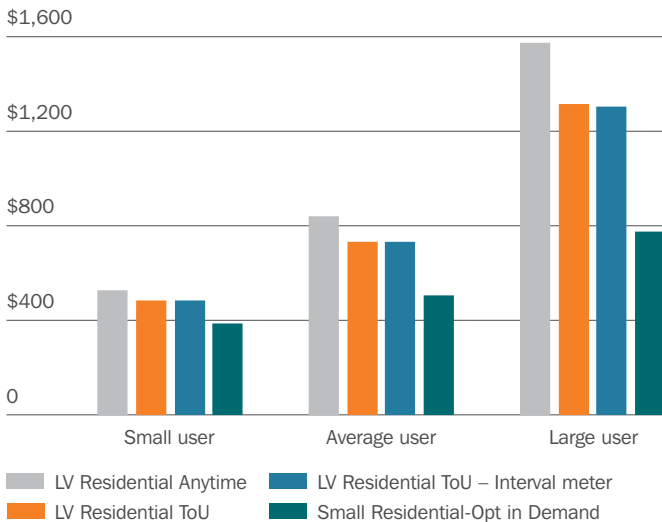
# 1 Executive Summary

## Summary of our network pricing reforms under this TSS

We are improving price signals to encourage more efficient use of our network, while also managing the associated bill impacts for customers as we transition to more cost-reflective network pricing.

In practical terms, this reform is being achieved by proposing a greater difference between peak and shoulder rates in our price structures, and making our default assignment for new customers to be a cost-reflective price in their relevant customer class. We have designed our network charges so that customers are incentivised to opt-in to more cost-reflective prices such as Time of Use (ToU) or demand-based charges. We have achieved this by allocating more residual costs to Anytime (flat rate) electricity consumption charges that are less efficient.

### Households

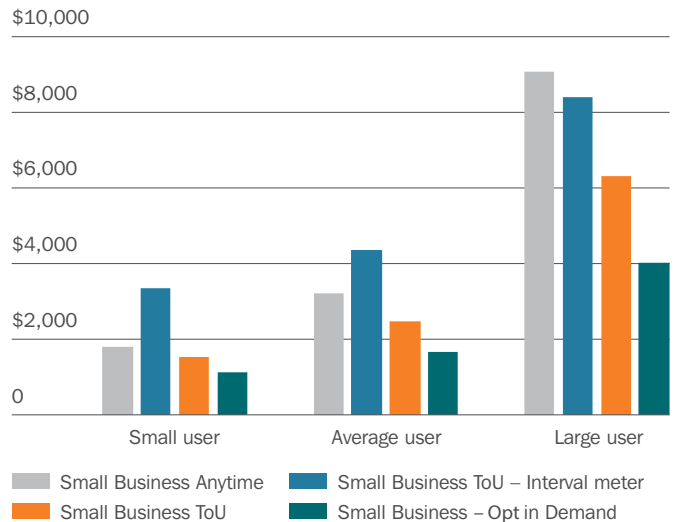


## Indicative Small Customer network charges under this TSS

The graphs below show indicative total network annual charges for Residential and Small Business customers with different consumption levels under our Anytime consumption, Time of Use Basic, Time of Use Interval and Demand pricing options. The charges reflect our indicative average pricing levels over the 2019-24 regulatory period.

The graphs demonstrate the financial incentives we have built into our individual network charges to encourage Residential and Small Business customers to opt-in to more cost-reflective network prices.

### Small Businesses





# Purpose and context

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# 2

## 2 Purpose and context

### Purpose

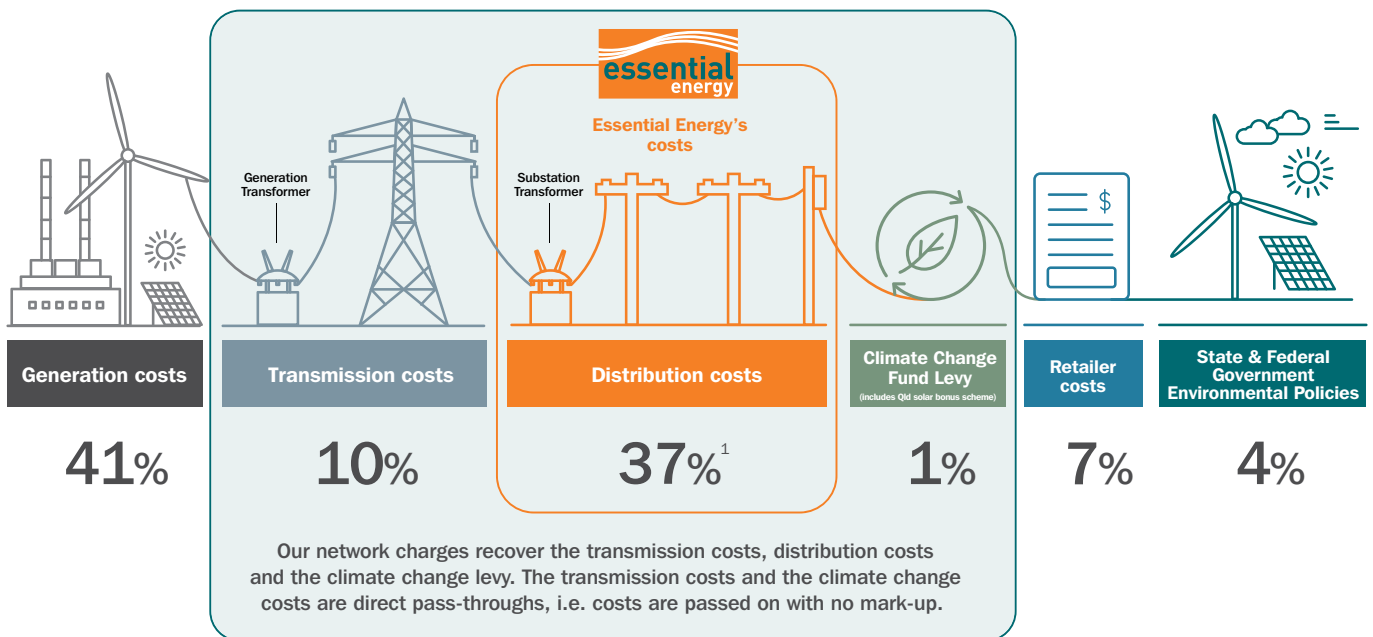
This TSS is designed to help Essential Energy's customers understand and plan for our 2019-24 network charges. It explains the five-year pricing strategy that will govern how we structure our network charges and the process for either assigning customers to these charges or providing them with the option to choose their pricing structure. It also sets out our indicative network charges for this period.

The TSS document is also used by the AER for assessing Essential Energy's compliance with relevant provisions of the NER. Once it is approved, we must ensure our annual pricing approval applications within the 2019-24 regulatory period accord with the TSS.

Essential Energy is an electricity distributor, so the TSS only addresses electricity distribution costs, which are just one part of the total retail bill that customers pay.

Our network charges comprise three elements:

- > Distribution costs, which are Essential Energy's costs to operate and maintain the distribution network and are the subject of the Regulatory Proposal of which this TSS is a part.
- > Transmission costs, which are the responsibility of TransGrid and Powerlink, for operating the transmission networks.
- > Climate Change Fund levy and Contributions to the Queensland Solar Bonus Scheme.



### Characteristics of our network that inform our pricing

The electricity industry is in a period of unprecedented change, driven by changes in the way our customers source and use energy, the push to decarbonise our energy supply, and increased decentralisation of the energy supply chain.

As these changes occur, we expect to have both active customers who invest in new technologies and change their energy sourcing and usage behaviours, and passive customers who continue to use energy in much the same way as they do today.

We need to ensure our price structures are fit-for-purpose for both customer types so we can best support all our customers' long-term interests. Doing this means designing network charges that recognise the characteristics of our network and our customers now and for the foreseeable future.

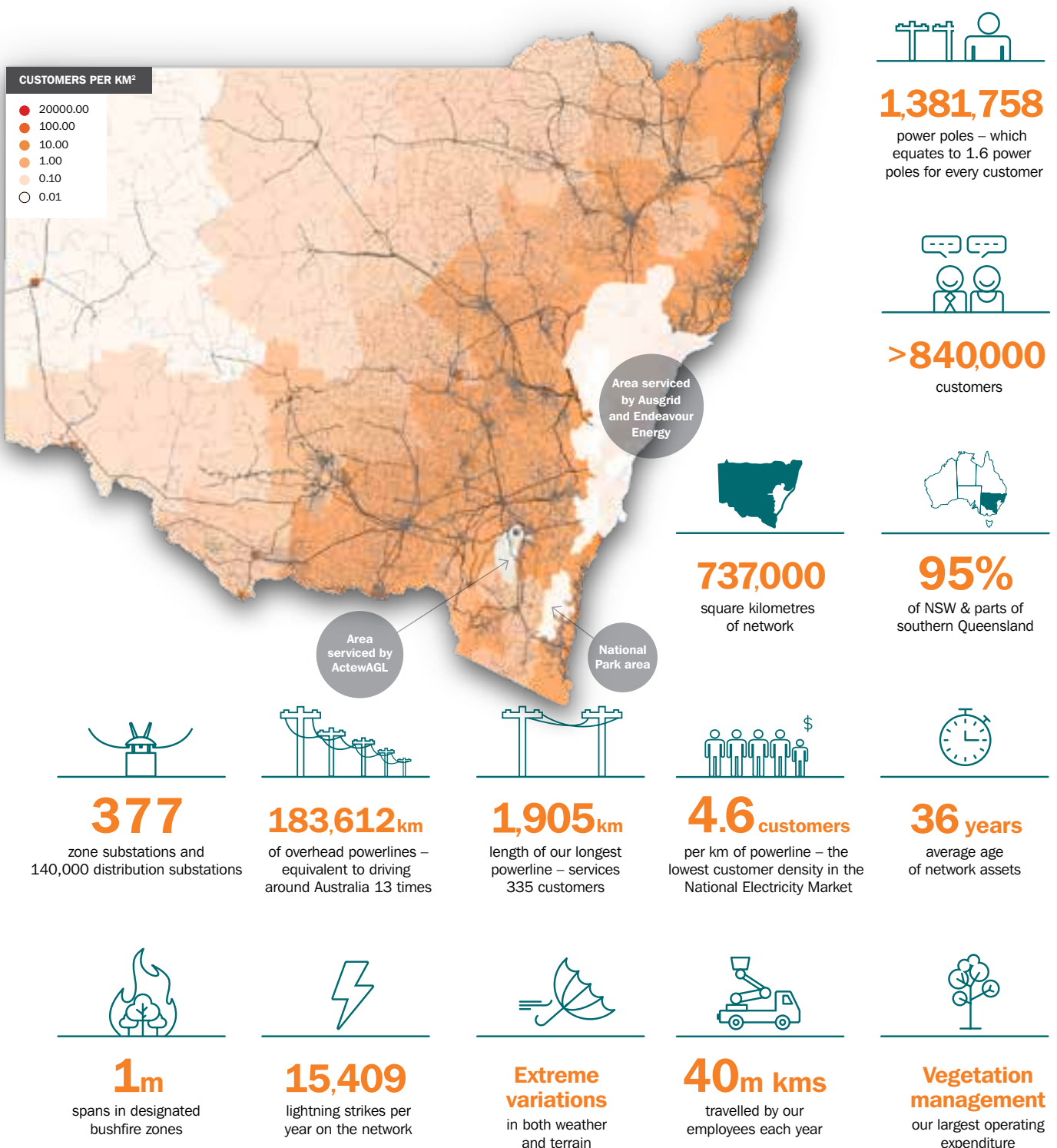
1. Based on 2017-18 forecast in Australian Energy Market Commission, 2017 Residential Electricity Price Trends, 18 December 2017 p.100.

## 2 Purpose and context

### Our network

Essential Energy has one of the largest electricity distribution networks in Australia. Our network size, and the regional and rural areas we cover, impacts how much it costs us to invest in and maintain our network. Because we service coastal and inland parts of NSW we have different seasonal

drivers of peak network use: summer cooling peaks in coastal areas, and winter heating peaks for inland areas. Also, some areas we serve have a very low population density, which means the individual cost-to-serve is high, as shown in the figure below.





## 2 Purpose and context

Other specific circumstances also affect our development of fit-for-purpose pricing strategies:

- > Most of our customers do not have smart meters. Generally, only solar customers or large users tend to have smart (or interval read) meters. This constrains our ability to apply or assess the impact of cost-reflective pricing structures to certain existing customers. The introduction of the AEMC's contestable metering reforms from December 2017 mean that in future, all new and replacement meters will be smart meters, and a customer's retailer will choose who provides their metering services.
- > Our corporate history of amalgamating several vertically-integrated energy suppliers means we still have some legacy pricing arrangements from the previous business structures. These are closed to new customers and will require ongoing gradual transition.

### Transforming in response to change

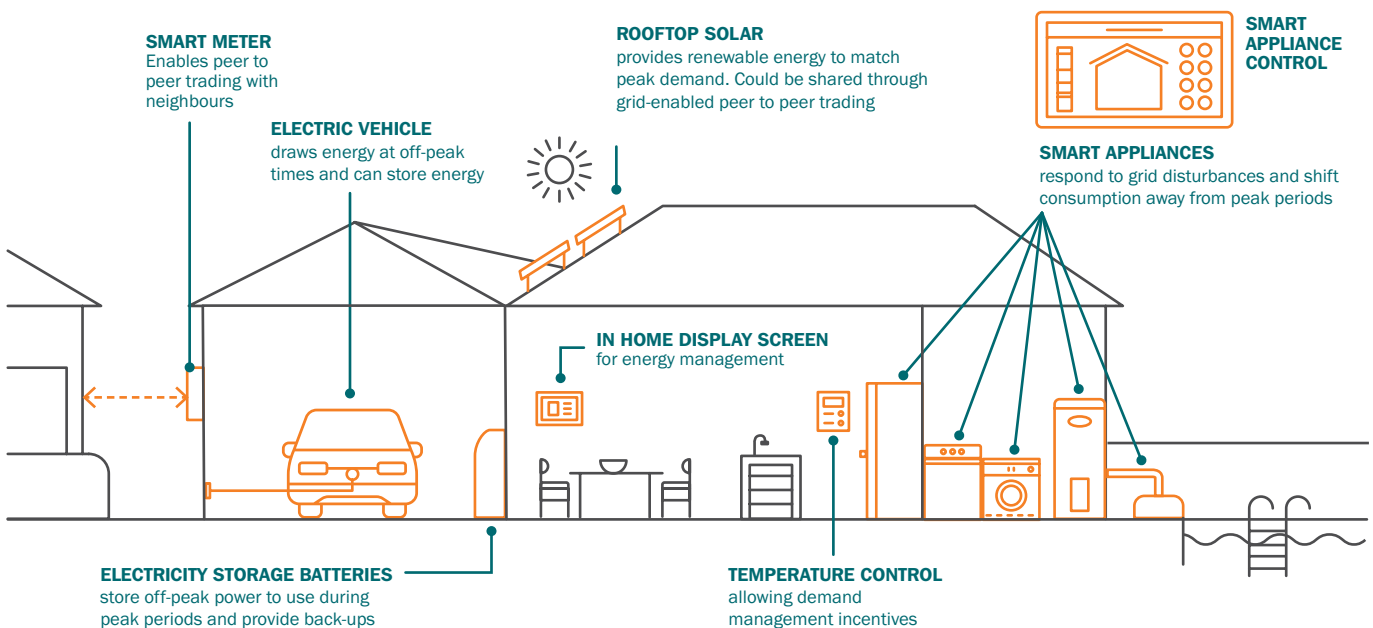
Energy Networks Australia and the CSIRO jointly released the Electricity Network Transformation Roadmap in 2017 to help guide the electricity industry, including network businesses like ours, through changing industry and market conditions. The Roadmap supports the potential for Australia to pursue an objective of zero net emissions by 2050.

In addition, Dr Alan Finkel's Blueprint for the Future for the National Electricity Market was released in June 2017. This outlined recommendations to support a secure and reliable energy supply, make energy affordable and achieve environmental goals. It highlighted that network businesses need to adapt in an orderly way to the integration of clean energy sources.

The Federal Government accepted 49 of the 50 recommendations outlined in Dr Finkel's report. The only recommendation they did not agree to support was the introduction of a Clean Energy Target. At the time of writing, they have chosen to progress down the path of a National Energy Guarantee.

The National Energy Guarantee aims to help address the energy 'trilemma' – balancing affordability, reliability and emissions reduction – by requiring electricity retailers (and some Large Customers) to ensure they have a sufficient supply of back-up energy available for use at any time and that the electricity they buy meets a specified emissions level. This will require retailers to use a mix of technology, generation, storage and demand response to achieve reliability and emissions reduction outcomes at the best price for consumers. Electricity distribution networks should have a large role to play in supporting retailers meet these obligations.

### How the future looks



## 2 Purpose and context

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### Our commitment to cost-reflective pricing

We heard from our customers that cost-reflective pricing serves the long term interests of consumers. We developed cost-reflective pricing principles to provide a framework for the long-term transition to cost-reflective pricing. These principles are:

#### We will see network charges design as successful when:

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> customers want to use the network and are willing to pay for how they use it;



> our charges support the long-term commercial sustainability of our business;



> transition is sensitive to understanding impacts and implications for our customers;



> we deliver customer and stakeholder education and engagement to both design and implement changes to our network charges; and



> the long-term interest of customers is served by looking at options and providing solutions.

#### We will see our service provision as successful when:

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> we understand which customers, feeders and locations we can efficiently support and which may have alternative (cheaper or more reliable) solutions; and



> we support alternative connections and usage of the network through clear network charges, policies and processes.

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## 2 Purpose and context

### Our approach to encourage the adoption of more cost-reflective network charges

We heard from our customers that affordability is important to them and choice in network charging options was the preferred approach to transition to cost-reflective pricing. We have therefore adopted an approach which is based on collaboration, incentives and education rather than a mandatory application of cost-reflective pricing with no or limited choice.

During the 2019-24 period we propose that the transition to cost-reflective pricing for our customers is based on a blend of network charges to encourage voluntary uptake of options. Outcomes and learnings from the 2019-24 period will inform the 2024-2029 TSS.

#### Incentives



We have prepared this TSS so financial incentives built into our individual network charges will encourage Residential and Small Business customers to opt-in to more cost-reflective network prices.

#### Education



We will increase education in relation to our network charges to advocate the benefits of cost-reflective pricing.

#### Collaboration



We will work closely with retailers to encourage adoption of more cost-reflective network charges options.

#### Trials



We will conduct customer trials to test other pricing options such as capacity based network charges, peak rebate and other techniques that may encourage customer response. These trials will inform future TSS's.

#### Technology



As a key enabler, smart metering and home energy management systems will help facilitate the transition to cost-reflective pricing. We will adapt and design our network charges to ensure maximum benefit can be derived.

#### Network Economics



We are working hard to understand the cost drivers at localised areas within our network, so we can better target and provide solutions which will deliver long term benefit for all customers.

#### Systems



We are upgrading our systems which will provide more options and scope to increase innovation in tariff design.

### Assessing performance of the 2019-24 TSS

The Public Interest Advocacy Centre (PIAC) suggested that a review of the 2019-24 TSS be undertaken two years following its commencement. The review would assess the performance of elements of the TSS, such as customer uptake of opt-in tariff options, customers who opt-out of default tariff assignments and an assessment of the general progression to cost reflective prices. We acknowledge the value of PIAC's suggested improvements and propose that a mid-term review of the TSS occur, with involvement of the AER and various customer and stakeholder groups.

# How we engaged to develop this TSS

# 3

## yourSay STAKEHOLDER ENGAGEMENT TIMELINE Regulatory Proposal 2019-24

- Created an evolving and dynamic approach
- Embedded Stakeholder Engagement
- Stakeholder consultation on plans and Fra
- Engaged independent experts

"Well presented with a good mixture of presentations. Hope it's all taken on board."

### DEEP DIVE

- ✓ We refreshed Our Vision
- ✓ We refreshed Our Purpose
- ✓ We refreshed Our Strategy
- ✓ We refreshed Our Purp

Engagement is always on, with many platforms.





### 3 How we engaged to develop this TSS

#### Our engagement process

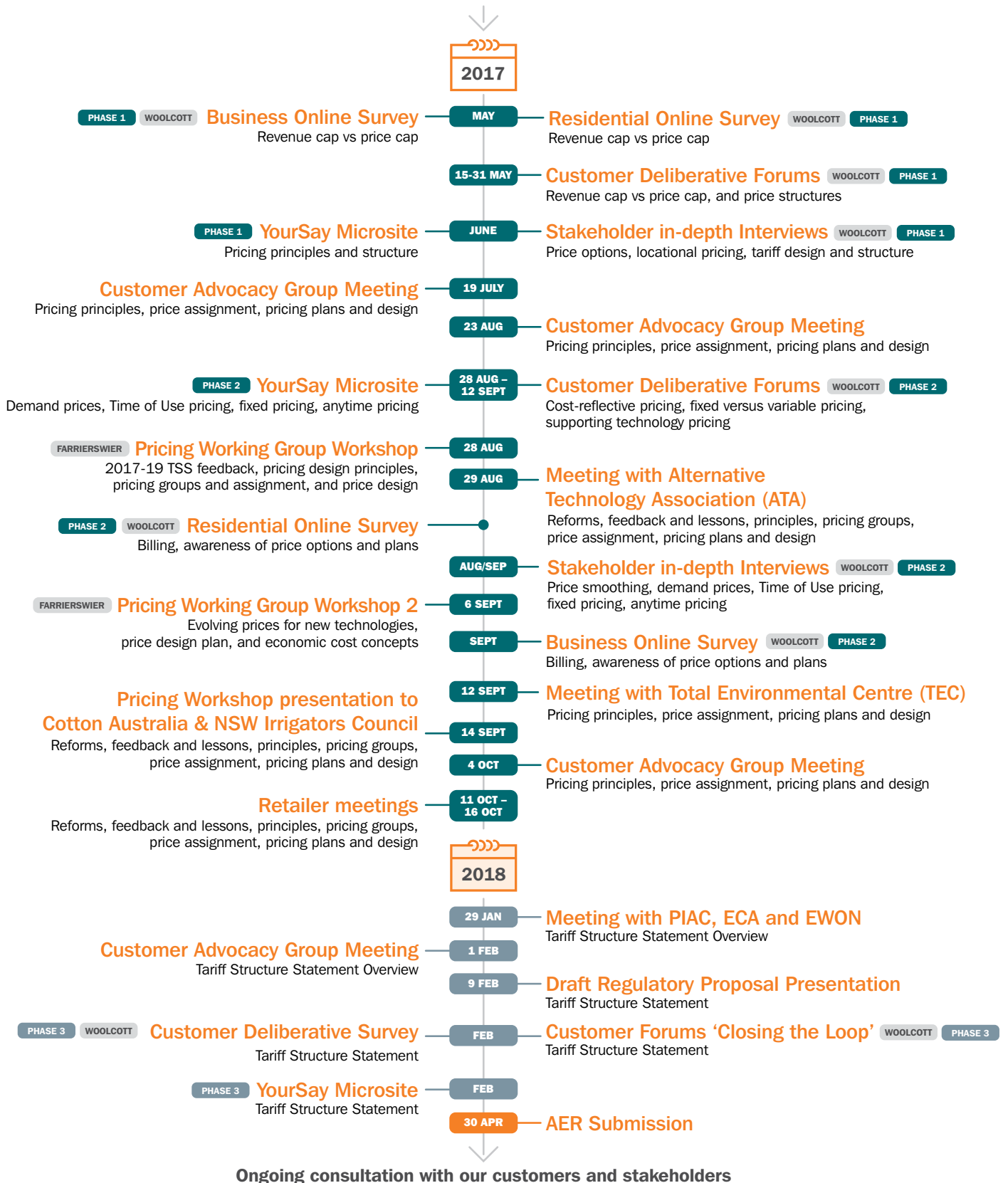
Our customers are predominantly based in regional, rural and remote NSW. When developing this TSS, and as part of our overall engagement plan for the 2019-24 Regulatory Proposal, we consulted with:

- > 1,000+ residential and small to medium business customers through online surveys.
- > 16 Large Customers and stakeholders through in-depth interviews.
- > 518 regional, rural and remote customers through deliberative forums across NSW.
- > Essential Energy's Customer Advocacy Group (CAG).

We also held two pricing forums with informed stakeholder groups and industry participants.




### 3 How we engaged to develop this TSS



### 3 How we engaged to develop this TSS

#### Essential Energy's 2019-24 Regulatory Proposal details our customer engagement program and the findings from our customer research

Provided below is a summary of engagement outcomes and responses.

Topic	Phase 1 and Phase 2 What we heard from customers	Phase 3 Outcomes
<b>Pricing</b> 	<ul style="list-style-type: none"> <li>&gt; Changing the time at which electricity is used impacts quality of life. Incentives needed to support change</li> <li>&gt; Progression to cost-reflective charges should be slow and careful. Bills should be predictable and stable</li> <li>&gt; Locational pricing, seasonal pricing and fixed charge increase were not popular</li> <li>&gt; Choice between pricing options required</li> <li>&gt; Support a price that encourages off-peak charging for electric vehicles</li> <li>&gt; Invest in researching microgrids as an option</li> <li>&gt; No change required to charging windows for Time of Use pricing</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 90% support for off-peak charging available and related services piloted</li> <li>&gt; 76% support for increasing fixed charges by \$5 p.a., with offsetting reductions in variable charges which allows slower progression towards cost-reflective prices</li> <li>&gt; 87% of customers supported no locational or seasonal pricing</li> <li>&gt; 87% support for network charging structures, with opt-out for all residents and small businesses</li> <li>&gt; 87% support for new default assignment for customers installing new innovative technologies to encourage efficient use</li> <li>&gt; 81% support for Microgrid pilots, with pricing trials undertaken and policy propositions</li> <li>&gt; 95% support for enhancing our education on network charges</li> </ul>

# Our customer classes

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# 4



## 4 Our customer classes

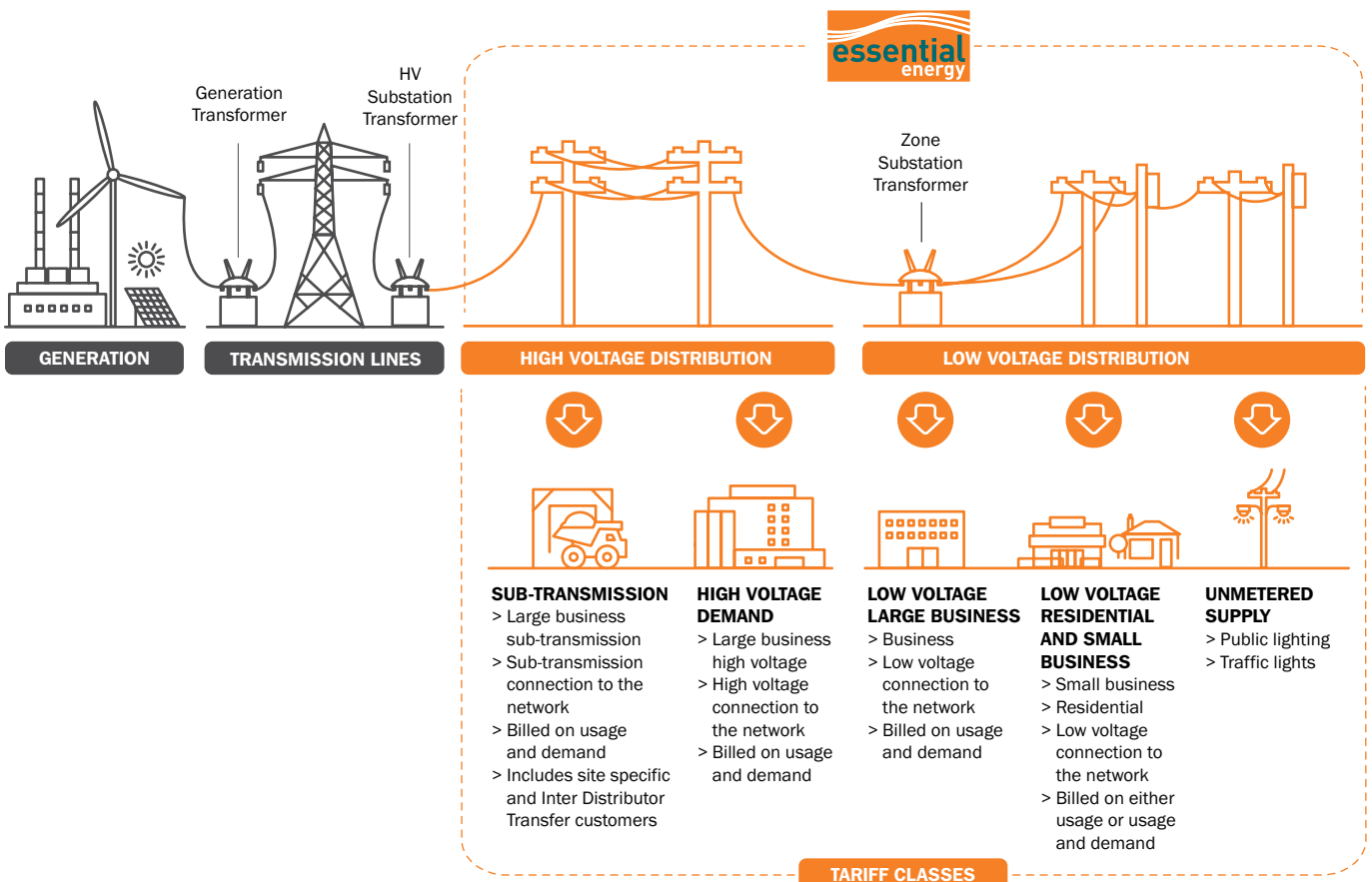
Based on customers' views, concerns and preferences expressed during our engagement work, the first step in pricing design was to identify different customer groups for charging purposes (tariff classes) so we could consider the cost of service for each group and ensure their network charges will recover these costs.

### Our customer classes

Our established our customer classes 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.

Following this work, we decided to propose to keep the customer classes we already have. These were approved by the AER in our previous TSS and supported by our Pricing Working Group. There are five customer classes:

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



## 4 Our customer classes

We propose to change the name of the two low voltage customer classes to better reflect the type of customers in each class. With the emergence of smart meters for Small Customers, it is logical to keep them in one class rather than move them to the Large Business class simply because they are on a network charge with a demand component.

The threshold for the Large Business customer class will remain at 160MWh per year as there was little customer support for changing it.

Apart from very large customers, who have site-specific charges, all our customers have network charges that are averaged for their class. During the 2019-24 regulatory period, these customer classes will not impede us from introducing new network charges for changes in energy and network use, including trial pricing (in accordance with NER Rule 6.18.1C). The Pricing Working Group identified trials as a good way for us to consider targeted pricing innovations such as critical peak charges or locational customer-specific charges, and to gain insights for future TSS regulatory periods.

The prices for these customer classes are included in: **Attachment 1** – Indicative NUOS Pricing Schedule of this TSS

### User pays service groupings

Alternative Control services are charged on a user pays basis, so they are organised into three groups according to the type of service provided rather than customer characteristics.

The prices for these services are included in:

**Attachment 2** – Indicative Ancillary Network Services Pricing Schedule to this TSS

**Attachment 3** – Indicative Metering Services Pricing Schedule to this TSS

**Attachment 4** – Indicative Public Lighting Pricing Schedule to this TSS



#### ALTERNATIVE CONTROL SERVICES



**BASIC METERS**

**PUBLIC LIGHTING**

**ANCILLARY NETWORK SERVICES**

- > Some level of competition may exist but the market is not yet fully competitive.
- > Costs are attributable to specific customers who pay for the service.

#### ALTERNATIVE CONTROL

- > Type 5 & 6 metering services for meters installed before 30 March 2018
- > Ancillary network services
- > Public lighting

# Assigning customers to customer classes

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# 5



## 5 Assigning customers to customer classes

**This is the second step in designing network charges. All new customers have a default pricing assignment for their customer type. Most new and existing customers can also make choices between alternative network charges if they are within the eligibility criteria. From time to time, we have to reassign customers when their characteristics change.**

### Default charging assignment

Default network charge assignment happens when a customer starts consuming electricity from a new connection point (greenfield site), an existing customer connects new technology to our network 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. Our default assignments reflect the outcome of options testing with our Pricing Working Group and respond to the AER's feedback on our previous TSS that in future, we should adopt default assignment to cost-reflective network charges.

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

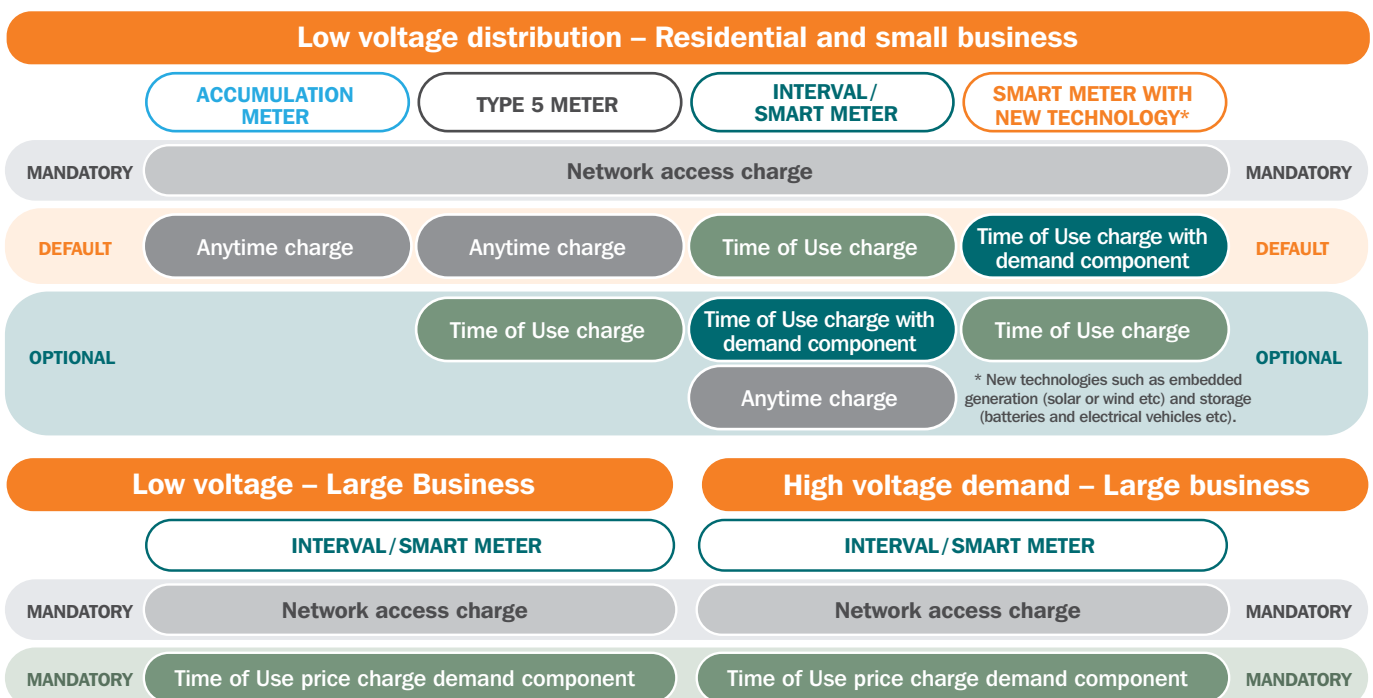
- > Assign the customer to the appropriate customer class, based on the class criteria.
- > Assign the customer to an appropriate network charge within the class. This is based on their connection, load and metering characteristics, and the customer type e.g. residential or business.

If there is a change of occupancy, we will either assign the customer to the existing network charge at those premises, or to the most appropriate default network charge, depending on the type of meter and type of customer.

Consistent with our Pricing Working Group feedback, we proposed in our Draft TSS that all new technology connections to our network (solar, batteries, electric cars, etc) will be assigned to a Time of Use charge with a demand component to encourage peak demand management. Our Proposal also included the ability of these customers to choose a Time of Use charge as an alternative option.

Large business customers who consume over 160MWh per year do not have the option to opt out of a demand based charge, as has been the case for many years. Some stakeholders expressed significant concerns that this approach unfairly penalises some customers and suggested alternative charging arrangements are necessary. We recognise the challenges faced by some customers in managing network use against network charge impacts. As we outlined in section 2, we propose to trial new ways of achieving cost-reflective pricing objectives through a blend of options enabled through new technology solutions and better availability of meter data.

The following diagram shows our proposed network charge structure for the 2019-24 regulatory period.





## 5 Assigning customers to customer classes

### Network Charge reassignment

We heard from our customers and stakeholders that choice was important to them. We then developed a Draft TSS to reflect what we heard. During our Phase 3 engagement program we sought feedback on key elements of the Draft TSS and opt-out arrangements for all Residential and Small Business customers. 87 per cent of customers who attended our forums supported the approach.

This TSS reflects the approach set out in our Draft TSS for 2019-24.

Customers will remain on their current network charge until:

- > their meter upgrade (although they may opt to move to a different network charge);
- > the customer or their retailer requests reassignment because their circumstances have changed;
- > or we request the reassignment.

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

- > A customer request e.g. they want to move to opt-in demand pricing.
- > A change in the customer's load, connection and/or metering characteristics (i.e. the retailer applies for a pricing reassignment on behalf of the customer).

Reassignment can also occur through Essential Energy's review process, whereby 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 network charge. We initiate the network charge reassignment by generally providing six months' notice to the customer and their retailer. When a residential customer requires a reassignment to a business tariff we will notify the retailer only.

As part of the notification procedure, we advise the retailer that they can request further information from Essential Energy and may object to the pricing reassignment decision. This allows them to formally request a review of the charging reassignment decision.

If the customer or retailer is unsatisfied with our response, they can escalate the matter to the Energy and Water Ombudsman (NSW) or any other external dispute resolution body with appropriate jurisdiction. If the customer or retailer is not satisfied with the external party's assessment, they can seek a decision from the AER using the dispute resolution process available under Part 10 of the National Electricity Law (the NEL).

We propose to retain our existing policy on reassignment frequency, under which a customer or retailer may only seek reassignment once a year unless they can prove mitigating circumstances.

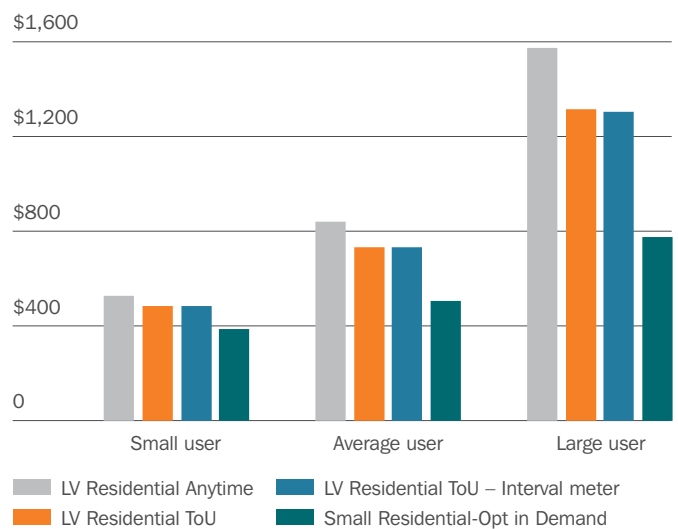
Full details of our network charging assignment and reassignment processes are contained in [Attachment 5 – Network tariff assignment and reassignment policy](#).

### Opt-in charging assignment options

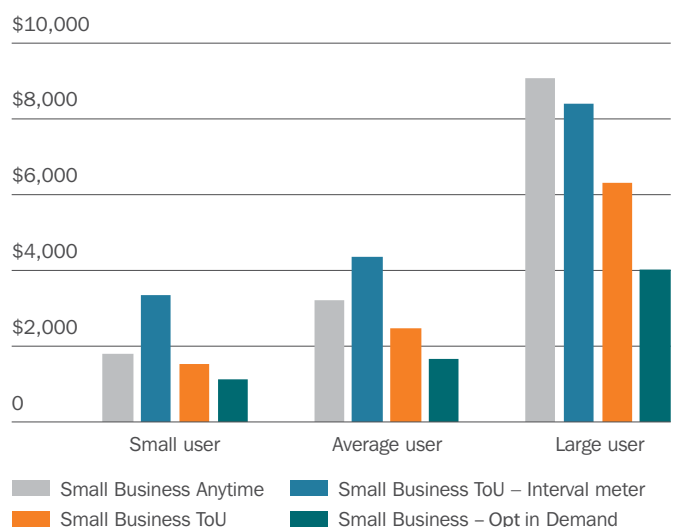
Opt-in network charging options during 2019-24 are shown in the graph below – total bill amounts are averaged over the period.

Most new and existing customers have the option to choose an alternative network charge. Because our opt-in demand prices are the most efficient of our cost-reflective network charges, we have made them an attractive option for customers.

#### Households



#### Small Businesses



# Our proposed network charge structures

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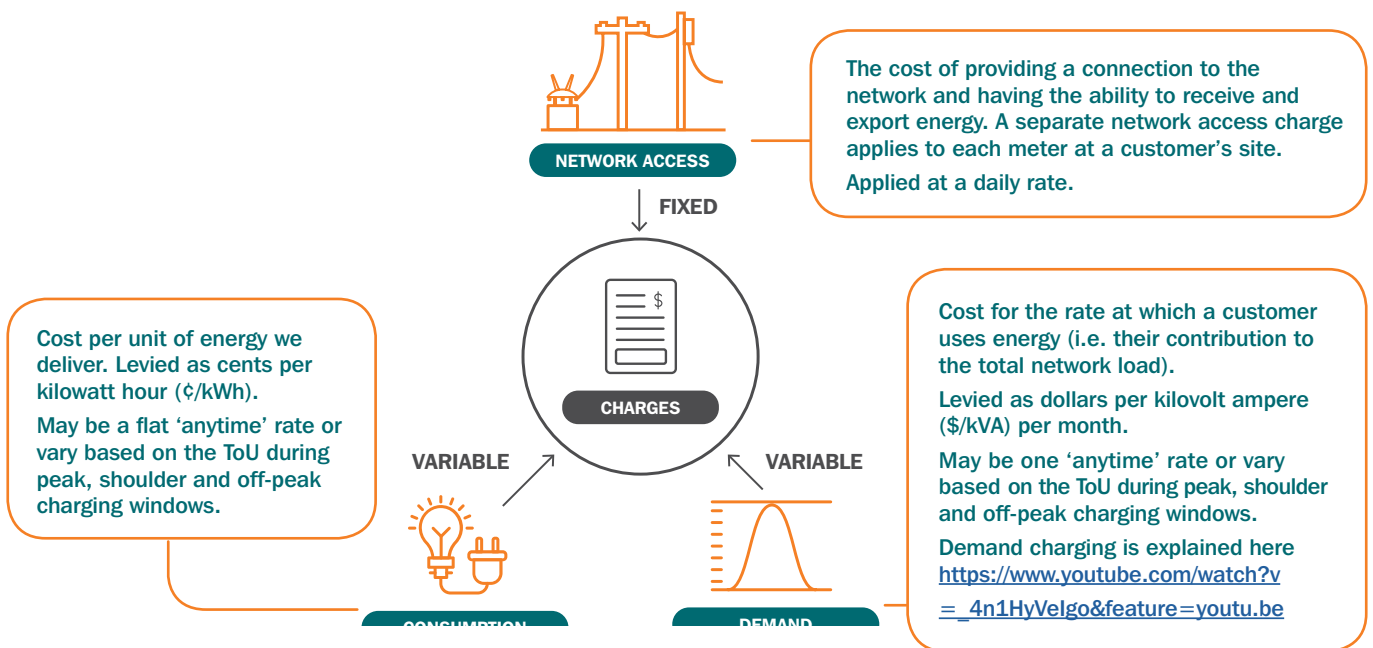
# 6

## 6 Our proposed network charge structures

Our final step in network charge design is to ensure our pricing structures are fit-for-purpose for the customers on them and are cost-reflective, and to set eligibility criteria for each network charge.

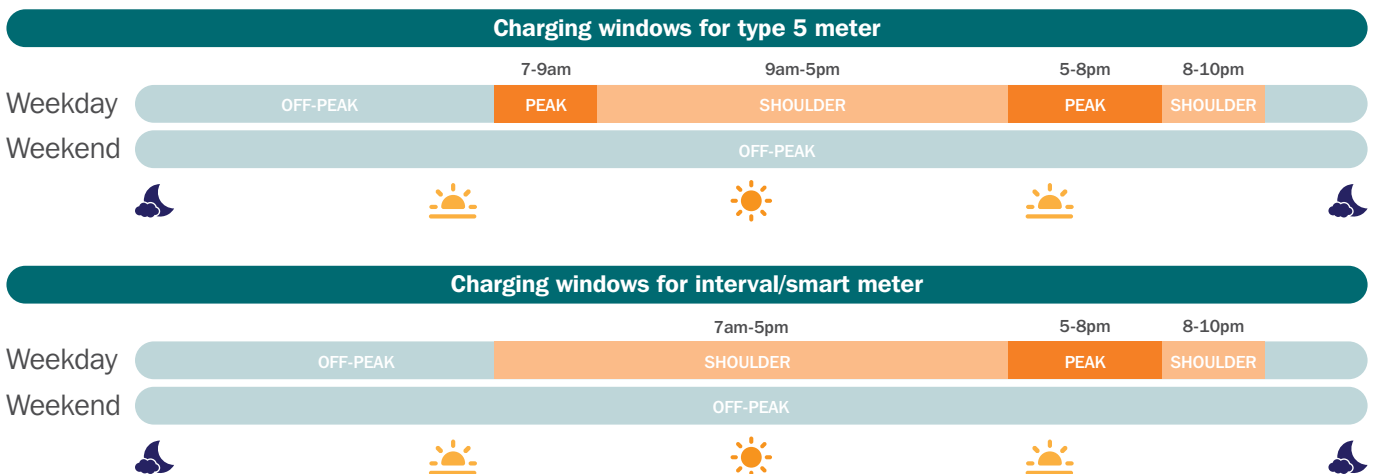
### Network charge parameters for 2019-24

Essential Energy has three ways of charging customers for delivering electricity to them.



Consumption charges that vary based on the time of day are referred to as ToU charges and are based on charging windows that we have developed to provide customers with accurate signals of network congestion and costs.

Our ToU charging windows for consumption and demand charges are set to the different time windows depending on the type of meter a customer has. Basic accumulation meters cannot be cost effectively reprogrammed so they still record a morning peak between 7am and 9am on weekdays. This also applies to our obsolete prices.



Section 2 of Attachment 6 – How we design our tariffs explains how we have chosen our charging windows to reflect the load profiles that drive our network costs.

## 6 Our proposed network charge structures

### Our network charge plans for 2019-24

Most elements of our approach to structuring network charges will remain essentially the same for 2019-24.

- > We will offer the same four Residential network charges under the Low Voltage Residential and Small Business Customer class as applied in the previous TSS.
- > We have retained our existing demand charging method for Small Customers. This means demand charges are levied based on the highest measured half-hour kVA demand registered in either the peak or shoulder charging window during the month.
- > After consulting on different demand charging methods, our Pricing Working Group voted to keep the current highest peak use in either the peak or shoulder periods method. They considered this to be the simplest method for customers to understand and the most closely aligned to the actual drivers of our network costs.

#### Residential customers' network charges and parameters

We will offer four network charges for low voltage Residential and Small Business customers. These charges, their parameters and proposed eligibility for each is covered in the table below.

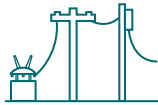


#### Low voltage distribution – Residential and small business

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



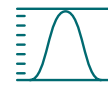
NETWORK CHARGE



NETWORK ACCESS



CONSUMPTION



DEMAND

Eligibility based on meter type

				Accumulation	Type 5	Interval/Smart	Smart meter* -new technology
<b>Anytime &lt;100MWh</b>		Flat rate not based on the time of day		✓	✓		
<b>ToU (basic type 5 meter) &lt;100MWh</b>		<p>Peak charges apply weekdays 7am to 9am and 5pm to 8pm</p> <p>Shoulder rates apply weekdays 9am to 5pm and 8pm to 10pm</p> <p>Off-peak charges apply All other times, including weekends</p>	Does not apply		○		
<b>ToU (interval/smart meter)</b>	Fixed dollar per day charge for all plans	<p>Peak charges apply weekdays 5pm to 8pm</p> <p>Shoulder rates apply weekdays 7am to 5pm and 8pm to 10pm</p> <p>Off-peak charges apply All other times, including weekends</p>				✓	○
<b>ToU with demand component</b>		<p>Peak charges apply weekdays 5pm to 8pm</p> <p>Shoulder rates apply weekdays 7am to 5pm and 8pm to 10pm</p> <p>Off-peak charges apply All other times, including weekends</p>	One charge for maximum demand during either peak or shoulder periods			○	✓

✓ Default tariff for this type of meter ○ Optional tariff for this type of meter

\* A smart meter with new technology refers to energy related technologies such as embedded generation (solar or wind etc.), storage such as batteries and electric vehicles.



## 6 Our proposed network charge structures

### Energy Saver network charges and parameters

Energy Saver (formally Controlled Load) is available to all customers. Energy Saver is where electricity supplied to specific appliances is charged at a lower rate during certain periods (such as off-peak electric hot water systems).

The structure and parameters for Energy Saver network charges are unchanged from the previous TSS.

Low voltage Residential and Small Business customers will still have access to two plans that provide low cost energy in off-peak times.

These Energy Saver charges are provided by meters installed, controlled and owned by Essential Energy. The table below provides the details of each option.



### Energy Saver (formally Controlled Load)



NETWORK CHARGE



LOW VOLTAGE RESIDENTIAL AND SMALL BUSINESS



NETWORK ACCESS

Fixed dollar per day charge



CONSUMPTION

Flat cents per kWh rate

#### Eligibility

	Eligibility	
<b>Energy Saver 1</b>	<ul style="list-style-type: none"> <li>&gt; Premise has another primary metering point at the same metering point as the secondary load and the load is remotely controlled</li> <li>&gt; Load is permanently connected or on a dedicated power circuit with indicators to show when supply is available.</li> </ul>	Between five and nine hours overnight on weekdays and extra hours on the weekends, except where the load is controlled by a time clock
<b>Energy Saver 2</b>	<ul style="list-style-type: none"> <li>&gt; The load types connected shall not exceed more than 25 Amps resistive</li> <li>&gt; Other conditions apply as detailed in Network Pricelist and Explanatory Notes</li> </ul>	Between 10 and 18 hours per day on weekdays and extra hours on weekends, except where the load is controlled by a time clock

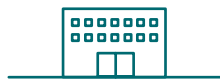
## 6 Our proposed network charge structures

### Large Business, Low Voltage customers' network charges and parameters

We will offer two network charges to our Large Business Low Voltage customers, with our average daily demand charge being made obsolete as it is not a cost-reflective network charge.

In consultation with our stakeholders and impacted customers, our previous TSS introduced a transitional network charge for some business customers who were formerly on a Small Customer Anytime or ToU network charge and who were no longer eligible to be on these prices. This meant that any price shock was minimised.

The structure of the transitional network charge does not differ from Low Voltage – ToU demand network charge offered to other business customers. The difference is the weighting of the various pricing components and the associated pricing transition path. Transitional pricing allows eligible customers to transition to full demand-based pricing over a five-year period commencing 1 July 2017, reducing bill shock and ensuring that Essential Energy adheres to the pricing principles in the NER.

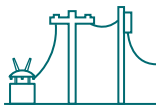


#### Low voltage – large business

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



NETWORK CHARGE



NETWORK ACCESS

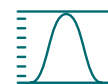
Fixed dollar per day charge



CONSUMPTION

Cents per kWh rate based on time of day

Peak Weekdays 5pm to 8pm    Shoulder Weekdays 7am to 5pm and 8pm to 10pm    Off-Peak All other times



DEMAND

Dollars per kVA per month

#### Eligibility

<b>Low Voltage – ToU three rate Demand</b>	<ul style="list-style-type: none"> <li>&gt; Business premises where consumption exceeds 160MWh per year</li> </ul>	Charge based on the highest measured half-hour kVA demand registered in each of the peak, shoulder and off-peak periods during the month
<b>Low Voltage – ToU Demand alternative</b>	<ul style="list-style-type: none"> <li>&gt; Business premises where consumption exceeds 160MWh per year</li> </ul>	One charge based on the highest measured half-hour kVA demand registered in either the peak or shoulder periods during the month
<b>Transitional – Demand</b>	<ul style="list-style-type: none"> <li>&gt; Eligible customers will be automatically assigned, pricing not available on request</li> <li>&gt; Eligible customers on anytime pricing or ToU pricing but no longer meet the associated eligibility requirements for that pricing and are worse off under the equivalent Low Voltage – ToU Demand pricing</li> <li>&gt; Business premises where consumption exceeds 160MWh per year</li> </ul>	Charge based on the highest measured half-hour kVA demand registered in each of the peak, shoulder and off-peak periods during the month
<b>Low Voltage – Time of Use (ToU) Average Daily Demand</b>	<ul style="list-style-type: none"> <li>&gt; Not available to new customers</li> <li>&gt; Business premises where consumption exceeds 160MWh per year</li> <li>&gt; 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 1500kVA</li> <li>&gt; Intended for customers with a seasonal demand</li> </ul>	Demand charge calculated on the average daily ToU demand for peak, shoulder and off-peak periods for the month

## 6 Our proposed network charge structures

### High Voltage customers' network charges and parameters

The network charge structures for large business customers connected and metered to our High Voltage network are identical to those in the current regulatory period, however our average daily demand charge will be made obsolete as it is not a cost-reflective network charge.



### High voltage

(high voltage connection and metering point)



NETWORK CHARGE



NETWORK ACCESS

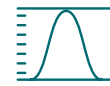
Fixed dollar per day charge



CONSUMPTION

Cents per kWh rate based on time of day

Peak Weekdays 5pm to 8pm	Shoulder Weekdays 7am to 5pm and 8pm to 10pm	Off-Peak All other times
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DEMAND

Dollars per kVA per month

#### Eligibility

<b>High Voltage – ToU monthly Demand</b>	<ul style="list-style-type: none"> <li>&gt; Business premises connected and metered at high voltage network</li> </ul>	Charge based on the highest measured half-hour kVA demand registered in each of the peak, shoulder and off-peak periods during the month
<b>High Voltage – ToU average daily Demand</b>	<ul style="list-style-type: none"> <li>&gt; Not available to new customers</li> <li>&gt; Monthly load factors &gt;60% for at least four of the most recent 12 months coinciding with a minimum on-season anytime monthly demand of 1500 kVA. 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</li> <li>&gt; Intended for customers with seasonal demand</li> </ul>	Demand charge calculated on the average daily ToU demand for peak, shoulder and off-peak periods for the month

## 6 Our proposed network charge structures

### Subtransmission customers' network charges and parameters

We will continue to offer the same network charge options for our Subtransmission and site-specific customers under the Subtransmission customer class.

The pricing structures are identical to our network charges in the current regulatory period.



### Subtransmission

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



NETWORK CHARGE



NETWORK ACCESS

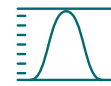
Fixed dollar per day charge



CONSUMPTION

Cents per kWh rate based on time of day

Peak Weekdays 5pm to 8pm	Shoulder Weekdays 7am to 5pm and 8pm to 10pm	Off-Peak All other times
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DEMAND

Dollars per kVA per month

#### Eligibility

<b>Subtransmission – ToU monthly Demand</b>	<ul style="list-style-type: none"> <li>&gt; Subtransmission connection (as defined by Essential Energy)</li> <li>&gt; Not applicable for connection to dual purpose subtransmission/distribution circuits</li> </ul>	Charge based on the highest measured half-hour kVA demand registered in each of the peak, shoulder and off-peak periods during the month
<b>Site-specific</b>	<ul style="list-style-type: none"> <li>&gt; Large Business customers on a case-by-case basis by application to Essential Energy</li> </ul>	Various combinations of fully cost-reflective structures



## Unmetered customers' network charges and parameters

We will continue to offer two network charging options for our Unmetered customers under the Unmetered customer class. The pricing structures are identical to our existing network charges.



### Unmetered

(Type 7 metering installation. Applies to loads detailed in the AEMO's National Electricity Market Load Tables)



NETWORK CHARGE



NETWORK ACCESS



CONSUMPTION

Eligibility

Cents per kWh rate based on time of day

	Eligibility	NETWORK CHARGE	NETWORK ACCESS	CONSUMPTION
<b>LV Unmetered Supply</b>	All new unmetered supply connections will have this pricing	Fixed dollar per day charge	Flat rate not based on the time of day	
<b>LV Public Lighting ToU</b>	All new public street lighting connections will have this pricing	Does not apply	Peak charges apply 7am to 9am and 5pm to 8pm weekdays Shoulder rates apply 9am to 5pm and 8pm to 10pm weekdays Off-peak charges apply all other times, including weekends	

# Our pricing proposals methodology

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7

## 7 Our pricing proposals methodology

**The approach we have used in our TSS, and which we will use for our annual Pricing Proposals in 2019-24, accords with clause 16.8.5 of the NER.**

### Rule requirements

The pricing structures and indicative charges for this TSS have all been developed following the pricing principles set out in the NER, particularly the principles relating to customer impact and ease of understanding. For more detail, see [Attachment 6 – How we design our tariffs](#).

#### The NER principles

Clause	Principle
<b>6.18.5(e)</b>	The revenue expected to be recovered for each tariff class must lie on or between <ul style="list-style-type: none"><li>&gt; an upper bound representing the stand-alone cost of serving the retail customers who belong to that class; and</li><li>&gt; a lower bound representing the avoidable cost of not serving those retail customers</li></ul>
<b>6.18.5(f)</b>	Each tariff is based on the Long Run Marginal Cost (LRMC) of providing the service
<b>6.18.5(g)</b>	Tariffs reflect the efficient costs of serving customers and minimise distortions in price signals for efficient usage
<b>6.18.5(h)</b>	The need to consider the impact on customers of tariff changes
<b>6.18.5(i)</b>	Tariff structures must be reasonably capable of being understood by customers
<b>6.18.5(j)</b>	Tariffs must comply with all applicable regulatory instruments

#### Stand-alone and avoidable cost

In relation to clause 6.18.5(e), our estimates of the stand-alone and avoidable cost for each customer class are included in our LRMC model. The method has not changed from our previous TSS; we can provide further details on request.

Our calculations show that, for each customer class, the proposed revenue lies between the lower bound (avoidable cost) and upper bound (stand-alone cost).

#### How our proposed 2018-19 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 Customer	322	2,218	711	Yes
Low Voltage Demand	87	698	202	Yes
High Voltage Demand	47	399	49	Yes
Subtransmission	6	56	15	Yes
Unmetered	3	26	9	Yes

## 7 Our pricing proposals methodology

### Long Run Marginal Cost

In relation to clause 6.18.5(f), our approach to estimating the LRMCM across our network is summarised in [Attachment 6 – How we design our tariffs](#).

This approach is the same as that approved by the AER for our previous TSS, with updates for the AER's feedback to extend the time horizon to 15 years and to include that component of replacement expenditure that relates to a change in capacity.

#### How different expenditures contribute to our LRMCM at each voltage level

	LRMCM by Voltage Level	Growth Capital Expenditure	Replacement Capital Expenditure	Growth Operating Expenditure	Voltage Level Component of LRMCM	Total LRMCM at Voltage Level
ST	(\$/kVA)	7	0	17	24	\$ 24
HV	(\$/kVA)	21	52	9	81	\$105
LV	(\$/kVA)	5	6	6	17	\$123

The Replacements Capital Expenditure programs that have been included as contributing to our marginal costs are:

- > Replacement of Bare Overhead Conductors
- > Condition based transformer replacement
- > Zone substation power transformer replacement

We calculate our LRMCM at a voltage level for customers. Therefore, we have an LRMCM estimate for Low Voltage, High Voltage and Subtransmission customers. The LRMCM estimate is not specific to location or feeder, but an average for all customers connected at the same voltage level and within the same customer class.

### Network charges are cost-reflective and minimise price signal distortions

If we based our network charges solely on our LRMCM, we would not recover all our required revenue. The NER require us to consider how best to recover these remaining costs (residual costs) in a way that is efficient and minimises distortions to price signals.

#### Efficient pricing

In the initial stages of pricing reform, an efficient allocation of residual costs would be to allocate more residual costs to the less efficient network charges and charging parameters, and less residual costs to the more efficient network charges and charging parameters. In this way, customers on more efficient prices would pay a smaller quantum of residual costs. This would encourage more customers to take up the more efficient network charge options.

#### Price distortion

Pricing parameters set closer to the LRMCM will have a smaller distortion on efficient usage decisions than those set further from the LRMCM. All network charges are at least at the new LRMCM recovery levels.

For this TSS, we have considered both efficient pricing and price distortion in conjunction with the customer impact of pricing changes requirement in the NER clause 6.18.5(h).



### Customer impact of network charge changes

Following AER feedback on our previous TSS, we have sought to manage the impact of network charge changes on our existing customers and new customers differently in this TSS. This approach will help Essential Energy to make greater progress towards cost reflectivity while managing bill impacts.

Many of our legacy pricing structures do not reflect NER requirements to the extent we would like in terms of providing efficient pricing signals. Also, most of our customers are still on accumulation meters that impede our ability to offer them cost-reflective network charges. As long as the meter type allows it, these network charges are no longer default, and some are now closed to new customers.

Moving all our customers to network charges that are cost-reflective and efficient, as required under the NER, would result in significant price shock for many customers. We are managing the associated bill impacts by the way we apply our residual costs, with more being allocated to our most inefficient prices in this TSS.

For new customers, there is no bill impact relative to previous pricing. We therefore propose to assign them to our default cost-reflective pricing, as set out in section 5. We have also priced our most cost-reflective network charges to encourage customers to opt-in to them.

### Our network charge structures can be easily understood

During our consultation process, customers, stakeholders and retailers all told us that our network charges need to be simple and clear. We have tried to make sure that our proposed pricing structures can be reasonably easily understood, particularly if supported by customer education.

In particular:

- > Our network charge structures remain largely unchanged from the previous TSS.
- > We consulted with the Pricing Working Group on the best way to charge Small Customers for demand, bearing in mind their feedback on simplicity and commonality with other networks, which led us to retain our existing approach (which is common to most Australian networks).
- > We have not implemented seasonal charging windows.
- > We have retained our simplified charging windows, which removed the morning peak for customers who have had an interval (or higher-capability) meter since July 2017.
- > Residential and Small Business customers who want to select demand-based charges can opt-in, ensuring that only customers who understand demand charging will be assigned to this pricing. However, customers connecting new technologies from July 2019 will be assigned to a demand based tariff with an opt out option to Time of Use.
- > We have developed brochures to explain our ToU, Energy Saver and demand charging network charges, and outlining the different types of meters and their capabilities. These can be downloaded at [essentialenergy.com.au/our-network/network-pricing-and-regulatory-reporting/tariff-change](https://essentialenergy.com.au/our-network/network-pricing-and-regulatory-reporting/tariff-change).

## 7 Our pricing proposals methodology

### Approach to price-setting

We are improving price signals to encourage more efficient use of our network, while managing bill impacts for customers as we transition to more cost-reflective charges.

We propose a greater difference between peak and shoulder rates, and default assignment of new customers to cost-reflective network charges.

In addition, when calculating our proposed network charges for each year of this TSS, we have:

- > Ensured that the expected revenue for each customer class lies between our estimates of the stand-alone cost of serving customers in that class and the avoidable costs of not serving them.
- > Assessed the relevant variable component of each customer class and, where this is not above LRMC, are transitioning them to LRMC; in some cases, this will take years e.g. the demand components of transitional pricing and opt-in residential demand pricing.
- > For demand pricing, we have sought to align peak demand charges with our estimate of LRMC for that customer class.
- > Allocated residual costs in a way that minimises distortion to customers' usage decisions by recovering more residual costs from Anytime usage network charges that are less efficient or less responsive to price changes.
- > Considered customer bill impacts.

### Residual cost allocation

We have sought to allocate residual costs – the difference between LRMC-driven costs and our allowed revenues determined by the AER – in a way that:

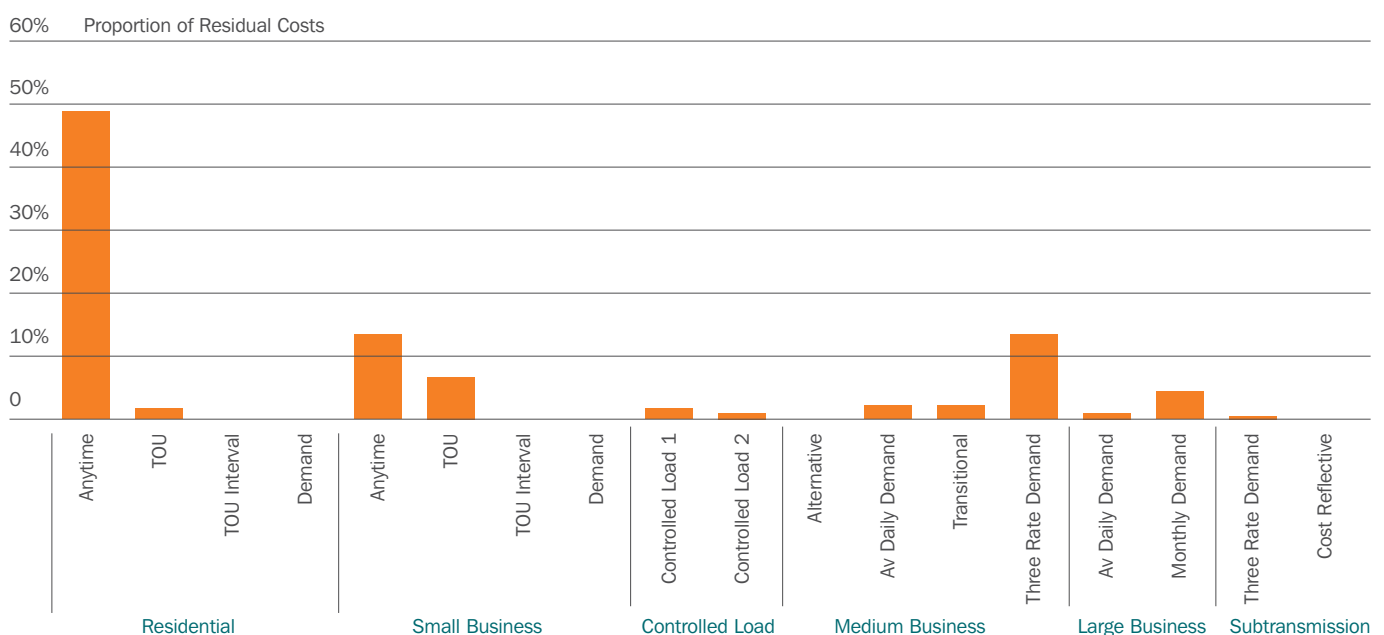
- > Allows us to create network charges that more accurately reflect the cost of providing network services at different times of the day.
- > Encourages customers to take up our new cost-reflective demand based network charges.

### Network charge types

This approach means our most efficient charging types (Demand) most closely reflect their LRMC estimates, while our least efficient charging types (Anytime) attract a greater share of residual costs. This is because their charging parameters are not closely linked to Time of Use, which is a key driver of higher residual costs for us.

This method of allocating our residual costs across different pricing types is the best way to encourage customers to choose cost-reflective network charges.

### Allocation of residual costs between network charges and customer types



## 7 Our pricing proposals methodology

### Charging parameters

We have continued this principled approach with how we allocate residual costs within network charges, based on the various charging parameters within each plan.

We have allocated a higher share of residual costs to charging parameters that are not closely linked to our LRMC cost drivers (e.g. fixed and usage charges), and Demand charging does not attract significant residual costs. Again, this approach is more cost-reflective and more likely to change customers' consumption behaviour.

To put the split of residual costs for ToU and Demand pricing in perspective, it is important to consider the allocation of residual costs in conjunction with the actual residual dollars allocated to each pricing component.

### Increase to Fixed Charges

During our engagement program, we asked customers if they supported a \$5, \$10 or \$20 increase in our quarterly fixed charge for small customers. The increases were largely unsupported by most customers and the concept of fixed charges going up while variable charges went down was not always well understood. However, stakeholders generally agreed that this economic concept was reasonable.

To balance customer feedback with the requirement to move towards more cost-reflective charging, we have proposed to increase the fixed charge for Small Customers by \$5 per year, which is less than the options proposed during customer consultation.

We tested the \$5 per year increase in the fixed charges during our Phase 3 customer engagement. 38 per cent of customers strongly supported the change, 32 per cent slightly supported it, 7 per cent don't really support it, 8 per cent did not support it, and 14 per cent did not know whether they support the change. Some stakeholders did not support the increase. Following consideration of the feedback we have maintained the approach outlined in our Draft TSS.



# 7 Our pricing proposals methodology

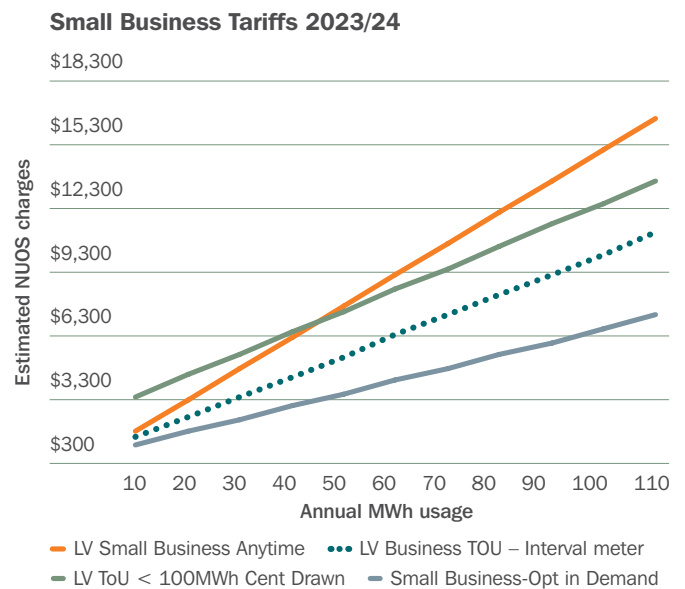
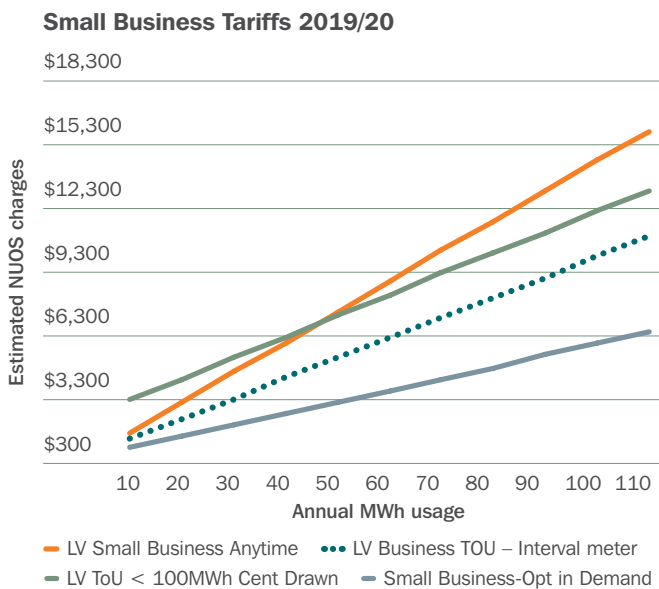
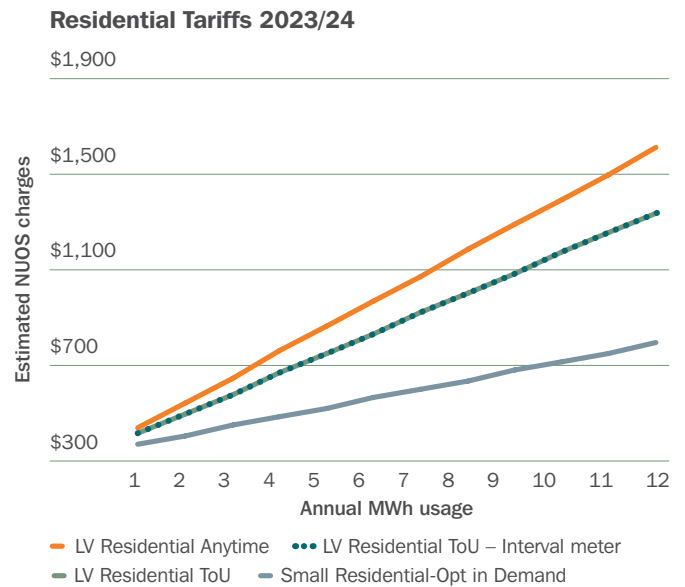
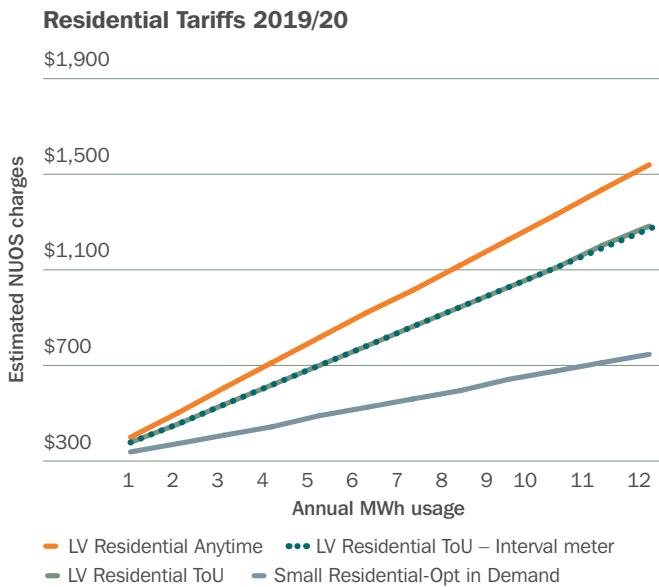
## Customer bill impacts

Our proposed network charging approach is different for the 2019-24 regulatory period than in our current TSS and will lead to changes in customers' network charges.

Average price changes may vary for each customer, depending on their level of consumption.

### Residential and Small Business customers

#### Comparison of proposed 2019-24 Residential and Small Business network charges by network charge

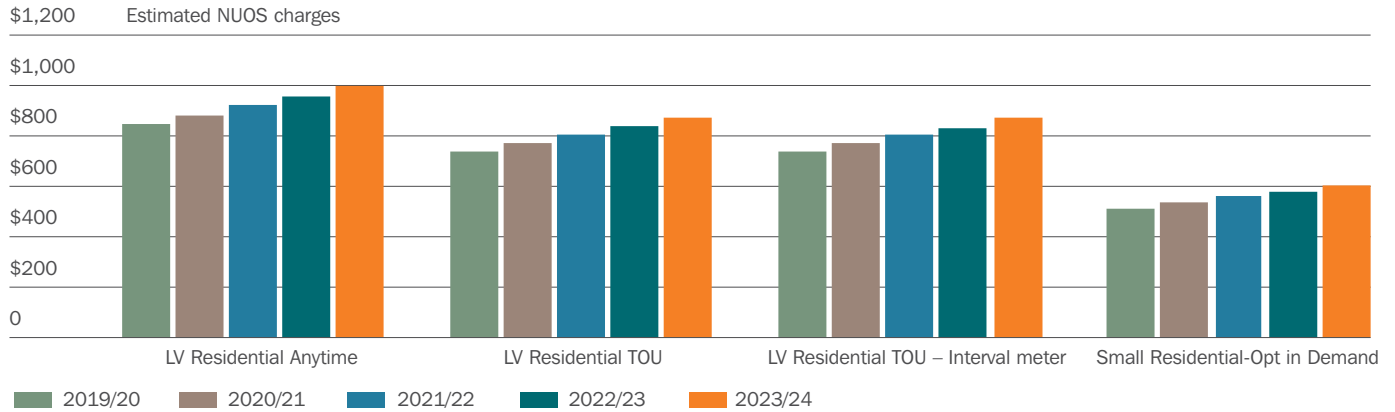




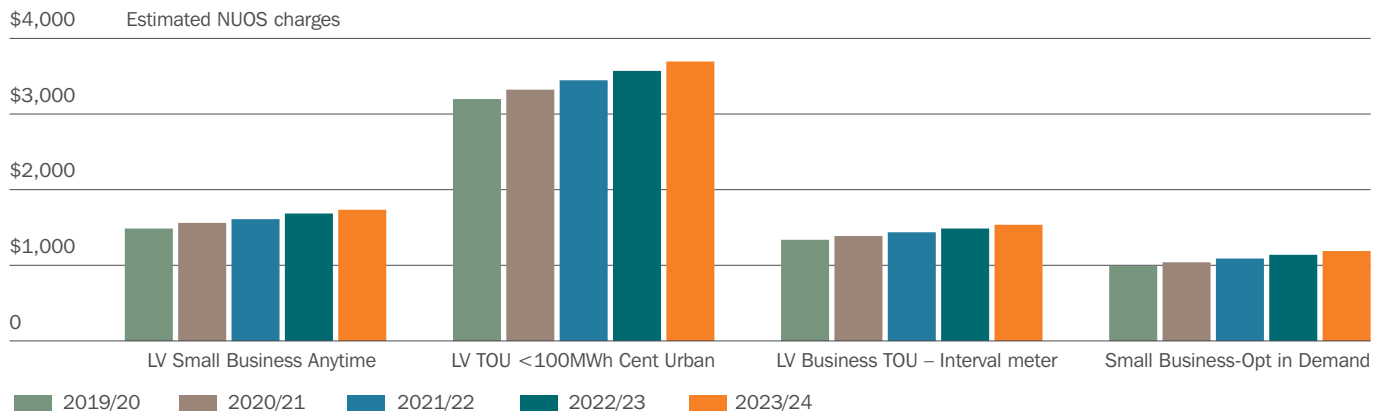
## 7 Our pricing proposals methodology

### Average Residential and Small Business annual network charges by pricing type with year on year change

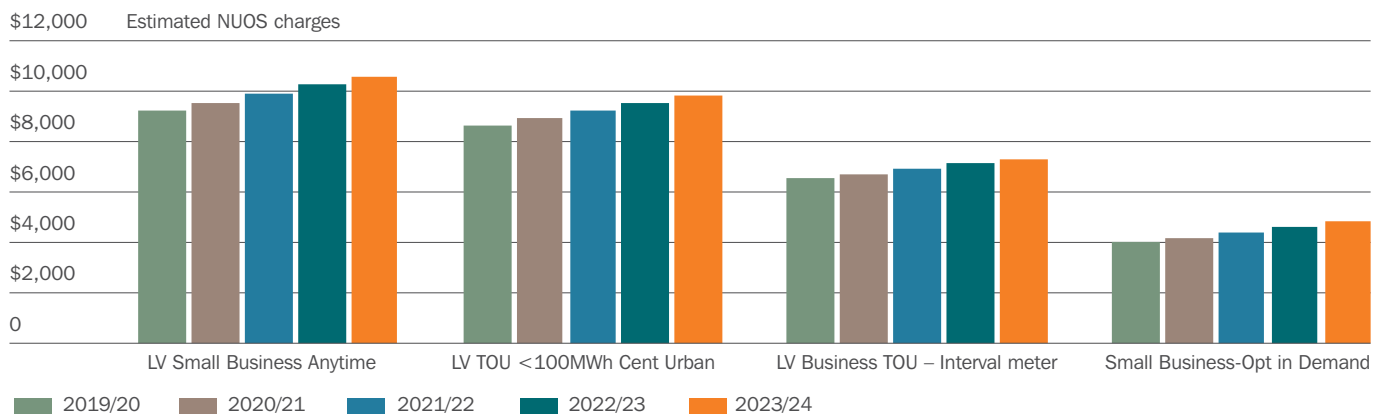
#### Residential 5 MWh



#### Small Business 8 MWh

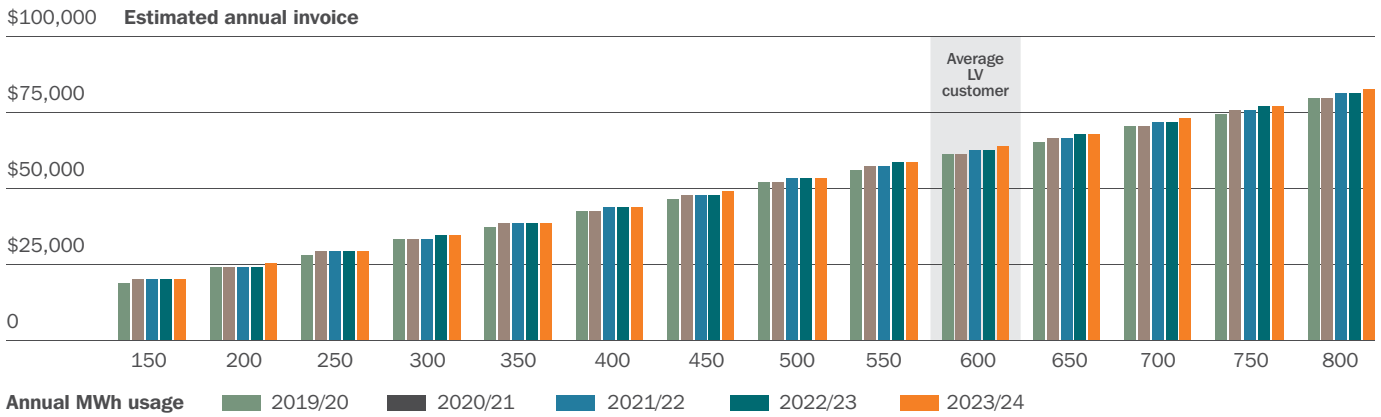


#### Small Business 60 MWh

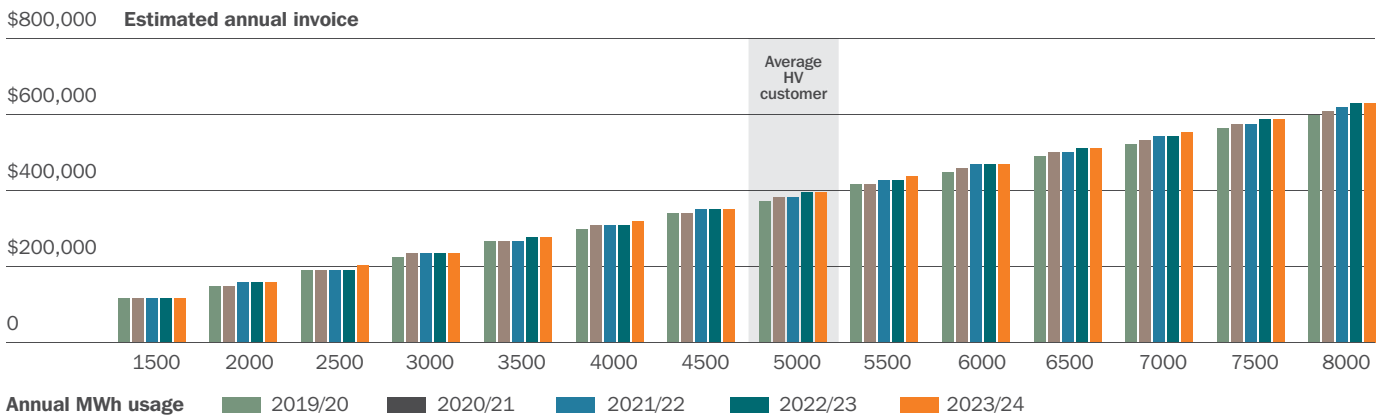


## 7 Our pricing proposals methodology

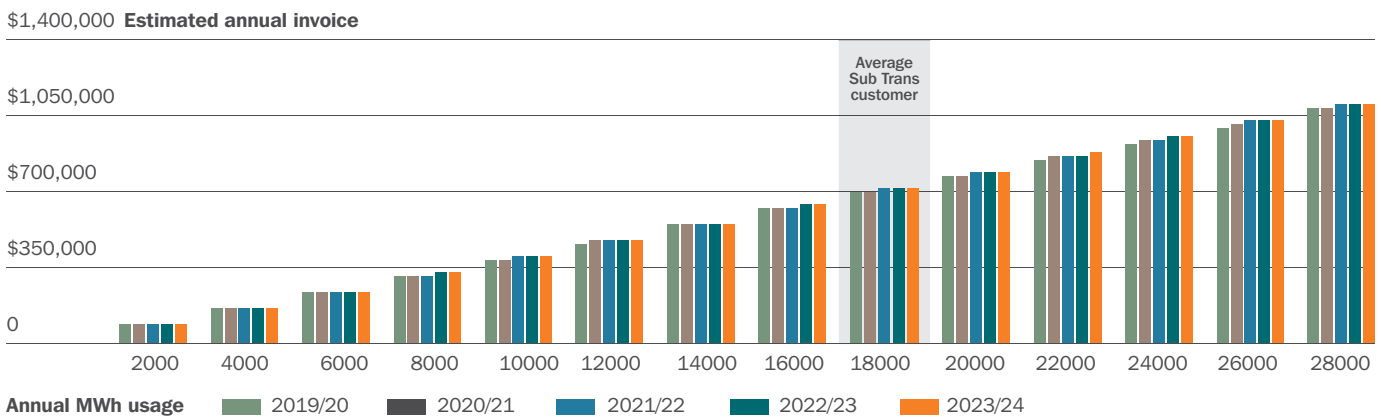
### LV TOU Demand 3 Rate



### HV TOU Monthly Demand



### Sub Trans 3 Rate Demand



# Proposed user pays charges

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## 8 Proposed user pays charges

We provide some services to individual customers on an as-needs basis and charge the user a fee. These fall into three categories:

- > Ancillary network services.
- > Metering services.
- > Public lighting.

For all these services, we charge an approved fee; a fee based on an approved unit rate; or a quoted fee. For more details, see these attachments:

**Attachment 2** – Indicative Ancillary Network Services Pricing Schedule to this TSS

**Attachment 3** – Indicative Metering Services Pricing Schedule to this TSS

**Attachment 4** – Indicative Public Lighting Pricing Schedule to this TSS

During the TSS period, we adjust these charges each year for CPI and any approved cost increases.

### Ancillary network services

The AER defines Ancillary Network Services as non-routine services provided to individual customers on an ‘as needed basis’. Essential Energy has a monopoly on providing these services, so the AER regulates them as Alternative Control Services.

The Ancillary Network Services and categories listed in this TSS are as the AER defines them in NSW distributors Framework and Approach commencing 1 July 2019.

Compared to our previous TSS, the number of Ancillary Network Services in this TSS has increased because of:

- > The AER’s 2016 Ring-fencing Guideline.
- > The launch of the Power of Choice reforms for contestable metering.
- > Stakeholder feedback.

Our indicative prices for these services are available in **Attachment 2** – Indicative Ancillary Network Services Pricing Schedule to this TSS.

For further details about how we have developed our prices for these services, please contact Essential Energy.

### Metering services

Essential Energy currently supplies Type 5 and Type 6 (basic) metering services to Residential and Small Business customers.

From 1 December 2017, the provision of new and replacement metering became fully contestable under the Power of Choice framework. As a result, we no longer install meters but are responsible for meter reading and maintenance activities for Type 5 and 6 meters. Whenever these meters are faulty, we refer them to retailers for replacement with a Type 4 (smart) meter, so the number of installed Type 5 and Type 6 meters is progressively declining.

When developing our metering services charges for this TSS, we have considered the intent of the Power of Choice framework and developed cost-reflective charges for these services. They include:

- > An operational component to recover our meter reading and maintenance costs.
- > A capital component to recover the costs of meters installed before 1 July 2015.

Customers pay our metering services charges on a cents-per-day basis, and each metering charge aligns to an equivalent network price.

Our indicative charges for these services are available in **Attachment 3** – Indicative Metering Services Pricing Schedule to this TSS.



## 8 Proposed user pays charges

### Public lighting services

The public lighting services Essential Energy provides include maintaining and replacing public lighting infrastructure – the Street Lighting Use of System (SLUOS) component of our services.

In response to stakeholder feedback for this TSS, we propose to implement component pricing during the 2019-24 regulatory period based on:

- > Capital Recovery charges (only applies to public lighting installations currently on network charges 3 and 5):
  - > luminaire;
  - > bracket; and
  - > pole.
- > Maintenance (OPEX) charges (applies to all public lighting installations):
  - > lamp; and
  - > pole.

Our proposed public lighting services and indicative prices are in [Attachment 4](#) – Indicative Public Lighting Pricing Schedule to this TSS.



# Compliance checklist

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# 9

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## 9 Compliance checklist

**Section 6.18 of the NER sets out the requirements for preparing and submitting a TSS to the AER. The table below sets out these requirements and where we have complied with them.**

### How to find where Essential Energy has addressed the NER's TSS requirements

Relevant requirement	Rule reference	Location in the TSS
The TSS must include customer classes	6.18.1A(a)(1)	Section 4 – Our customer classes
The TSS must include the policies and procedures for assigning customers to tariffs and reassigning from one tariff to another	6.18.1A(a)(2)	Section 5 – Assigning customers to customer classes
The TSS must include the structures for each tariff	6.18.1A(a)(3)	Section 6 – Our proposed network charge structures
The TSS must include the charging parameters for each tariff	6.18.1A(a)(4)	Section 6 – Our proposed network charge structures
The TSS must include a description of the approach we will take in setting each tariff in each Pricing Proposal during the regulatory period	6.18.1A(a)(5)	Section 7 – Our pricing proposals methodology
The TSS must comply with the pricing principles for Direct Control services	6.18.1A(b)	Section 7 – Our pricing proposals methodology
A DNSP must comply with the TSS approved by the AER and any other applicable requirements in the Rules, when the provider is setting the prices that may be charged for Direct Control services	6.18.1A(c)	Not applicable for this TSS
Subject to clause 6.18.1B, a TSS may not be amended during a regulatory period	6.18.1B(a)-(d)	Not applicable for this TSS
The TSS must be accompanied by an indicative pricing schedule	6.18.1A(e)	Attachment 1 – Indicative NUOS Pricing Schedule of this TSS

# Glossary

Term	Meaning
<b>2014-19 Determination</b>	Our current regulatory period from 1 July 2014 to 30 June 2019
<b>AEMC</b>	Australian Energy Market Commission: rule-makers for Australian electricity and gas markets
<b>AER</b>	Australian Energy Regulator: national regulator for the electricity industry
<b>Alternative Control services</b>	Specific user-requested services: Public lighting; Type 5 and Type 6 metering (generally Residential and Small Business customer meters); and Ancillary Network Services
<b>Charging parameters</b>	The specific charge characteristics for a component within the pricing structure
<b>CPI</b>	Consumer Price Index
<b>Customer class</b>	A group of customers that share a common set of characteristics that allow them to be grouped together to ensure similar customers pay similar charges
<b>DBT/Declining block tariff</b>	Where the network charge becomes progressively cheaper as customer consumption increases
<b>Direct Control services</b>	Services regulated by the AER under the National Electricity Rules, comprising Standard Control services and Alternative Control services
<b>DNSP</b>	Distribution Network Service Provider
<b>Financial year</b>	The year running from 1 July in any year to 30 June the following year
<b>HV</b>	High voltage
<b>IDT</b>	Inter-distributor transfer – a type of customer
<b>kVA</b>	Kilovolt ampere
<b>kW</b>	Kilowatt
<b>kWh</b>	Kilowatt hour
<b>LRMC</b>	Long Run Marginal Cost: economic term for the cost of adding one more unit of demand to the network
<b>LV</b>	Low voltage
<b>NEL</b>	National Electricity Law
<b>NEO</b>	National Electricity Objective
<b>NMI</b>	National Meter Identifier – each meter installation has a unique NMI
<b>NUOS</b>	Network Use of System: this is the charge for using Essential Energy's distribution network, as well as the pass-through of transmission type costs and jurisdictional scheme amounts such as the Climate Change Fund



<b>Term</b>	<b>Meaning</b>
<b>Peak demand/ peak load</b>	The maximum electricity demand customers place on the electricity network
<b>Standard Control services</b>	Essential Energy's core activities: providing access to, and supply of, electricity to customers
<b>Pricing</b>	A cost charged to network customers to recover the efficient costs of providing network services
<b>Pricing component</b>	Different cost factors that work together to reflect the efficient costs of providing network services to customers, comprising network access, consumption and demand charges
<b>Pricing schedule</b>	The list of prices and pricing structures for each of our network charges, published annually. Also referred to as Network Price List and Explanatory Notes
<b>Pricing structure</b>	How pricing components are combined to give the pricing structure/network charge
<b>NER</b>	The National Electricity Rules: these govern the operation of the national electricity market
<b>ToU</b>	Time of Use: a meter or charging parameter that varies according to whether electricity is consumed in the peak, shoulder or off-peak period
<b>TSS</b>	Tariff Structure Statement

