

# **Improving the way we price our network services**

**Consultation paper**

October 2015

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# 1 Overview

## Our network tariff strategy

A key focus area for TasNetworks is to deliver predictable and sustainable network prices for our customers. This consultation delivers on that strategy by continuing our engagement on our network tariff strategy and transitioning our current suite of existing network tariffs.

Our network tariff strategy is to move towards more cost reflective network tariff structures that enable customers to:

- make more informed investment and electricity use decisions; and
- recognise and pay for the value the network provides to them by gradually:
  - transitioning how our efficient costs are allocated to make network tariffs fairer for all of our customers; and
  - increasing the service charges of our network tariffs to better reflect the underlying characteristics of our efficient network costs.

More cost reflective network tariffs reward efficient use of the electricity network. This helps to reduce the need for substantial new investment in the network and helps keep costs down for all our customers in the long term.

We have consulted on our initial network tariff strategy and incorporated that feedback into our network tariff strategy. Our network tariff strategy is broadly grouped in two areas:

1. Transitioning existing network tariffs to be more cost reflective.
2. Offering demand based network tariffs as a customer choice.

## Transition for existing consumption based network tariffs

There are a number of changes that we need to make to ensure our network tariffs are more cost reflective. We have started the gradual move to more cost reflective network tariffs by making small changes to our existing network tariffs. These changes are based on a long term transition plan across a range of areas that considers and manages the impacts on customers. The purpose of this paper is to consult and inform our customers on transitioning existing network tariffs to be more cost reflective.

## Demand based network tariffs – offering a new choice

Our initial view is that time of use demand based network tariffs may be the best long term network tariff structure to reflect the costs of providing network services, to benefit our customers and to satisfy the pricing principles in the National Electricity Rules. Some of our business customers already have a demand based tariff. From 2017, we will offer new demand based network tariffs as a choice for residential and small business customers.

We prepared a separate consultation paper titled *Demand based network tariffs – offering a new choice* that provides more information on our proposed approach to offering demand based network tariffs as a customer choice. This paper can be

found on our website: [www.tasnetworks.com.au/consumer-engagement](http://www.tasnetworks.com.au/consumer-engagement). The papers are complementary; therefore sections 4 to 7 are consistent.

The demand based network tariffs paper compares network customer charge impacts under two scenarios (i.e. demand based network tariffs vs consumption based network tariffs) with a long term view. The network charges in this paper illustrate the transition of the existing network tariffs from the present levels to forecast levels at the end of the next regulatory control period (30 June 2019). Therefore the network charges in the two papers are based on different assumptions and are not comparable.

### **Network tariff transition**

The purpose of this paper is to outline our approach to improving the way we price our network services we are consulting and informing our customers on the transition of all our existing network tariffs to be more cost reflective. This paper responds to customer feedback that customers want to better understand the changes that will be made to network tariffs and how we will transition over time. This includes a description of:

- how efficient costs are allocated to make network tariffs fairer for all of our customers;
- our approach to increasing the service charges of our network tariffs to better reflect the underlying characteristics of our efficient network costs;
- our approach to changing components in the network tariff structure for existing network tariffs;
- the key assumptions underpinning our indicative annual network charges, in particular, that forecast distribution revenue is declining; and
- network customer impacts on the existing network tariffs.<sup>1</sup>

### **Continuing consultation and feedback**

We recognise that information about network tariffs and how we earn revenue is complex. We are continuing to explore communication methods to help our customers understand our plans and provide us feedback. We will release fact sheets as part of our engagement with customers in the lead up to submitting our Tariff Structure Statement to the Australian Energy Regulator in January 2016.

The Tariff Structure Statement is a document that details our network tariff strategy, transition plan, feedback received from our customers, and indicative network prices. The feedback we receive on this paper will assist us in developing our Tariff Structure Statement, including our transition plan for our existing consumption based network tariffs.

We encourage you to have your say and we would welcome your feedback by 5pm **Friday 20 November 2015**.

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<sup>1</sup> Network customer impacts relating to the demand based network tariffs are provided in our *Demand based network tariffs – offering a new choice* consultation paper. The network customer impact analysis included the network tariff transition elements relevant to all network tariffs that are discussed in this paper.

## 2 Background

TasNetworks commenced operations on 1 July 2014. We were formed by merging Aurora's distribution network and Transend's transmission network. We are a monopoly provider of many transmission and distribution network services. The Australian Energy Regulator determines how much revenue we are able to earn over a defined period (usually five years) to provide these services. The period is called the regulatory control period. Our next distribution regulatory control period is for two years, from 1 July 2017 to 30 June 2019. The shorter regulatory control period enables alignment of both our distribution and transmission regulatory control periods from 2019.

In setting our revenue allowance, the regulator provides a range of financial incentives. These incentives support our focus on improving efficiency by reducing the costs of the services we provide, while maintaining or improving the quality and reliability of our services. If you would like to learn more about our distribution regulatory proposal, information is available on our website: [www.tasnetworks.com.au/consumer-engagement](http://www.tasnetworks.com.au/consumer-engagement).

Under the regulatory framework a revenue cap is set to determine the amount of revenue we can earn each financial year. For our distribution customers we recover the distribution services revenue cap, and a share of the transmission services revenue cap, through network tariffs approved by the regulator.

**Network tariffs** are used to determine the cost of network service for each customer connected to the **distribution network**. Our network tariffs include transmission and distribution network costs. Rather than charging the customer directly for these costs, we charge retailers.

**Retail tariffs** reflect how each retailer packages its input costs for particular customers, including network costs, energy costs, renewable energy target costs, market levies and the cost of providing retail services. It is the retail tariffs that customers see in their retail bills.

This paper relates to the network tariffs we charge retailers. Nearly 60 per cent of the average Tasmanian residential and small business customer electricity bill<sup>2</sup> relates to TasNetworks' costs for providing network services and metering services. This paper is focused only on tariffs for network services.

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<sup>2</sup> Source: Office of the Tasmanian Economic Regulator, based on 2014-15 standing offer prices

### 3 Purpose

The purpose of this paper is to outline our approach to improving the way we price our network services. This affects all our network tariffs. This paper responds to customer feedback that customers want to better understand the changes that will be made to network tariffs and how we will transition over time.

This includes a description of:

- how efficient costs are allocated to make network tariffs fairer for all of our customers;
- our approach to increasing the service charges of our network tariffs to better reflect the underlying characteristics of our efficient network costs;
- our approach to changing components in the network tariff structure for the existing network tariffs;
- the key assumptions underpinning our indicative annual network charges, in particular, that forecast distribution revenue is declining; and
- network customer impacts on the existing network tariffs<sup>3</sup>.

### 4 Network tariff strategy

Recent changes to the National Electricity Rules require that network tariffs be more cost reflective. This means that even though we will be collecting the same level of overall revenue from customers in accordance with the Australian Energy Regulator's revenue decisions, the way in which we recover this revenue will transition so that it is more closely linked to customers' use of our network.

"Network tariff reform is a key to making energy markets work better for energy consumers", Australian Energy Regulator Chair Paula Conboy said on 2 July 2015 at a CEDA event in Sydney.

"Cost reflective network prices allow consumers to compare the value they place on using the network with the costs of using it."

Our network tariff strategy is to move towards more cost reflective network tariff structures that enable customers to:

- make more informed investment and electricity use decisions; and
- recognise and pay for the value the network provides to them by gradually:
  - transitioning how our efficient costs are recovered to make network tariffs fairer for all of our customers; and

<sup>3</sup> Network customer impacts relating to the demand based network tariffs are provided in our *Demand based network tariffs – offering a new choice* consultation paper. The network customer impact analysis included the network tariff transition elements relevant to all network tariffs that are discussed in this paper. The papers are complementary; therefore sections 4 to 7 are consistent.

- increasing the service charges of our network tariffs to better reflect the underlying characteristics of our efficient network costs.

More cost reflective network tariffs reward efficient use. Developed in consultation with retailers, network tariffs can enable customers to recognise and pay for the value the network provides to them and assist them to make better investment and energy use decisions.

In Tasmania, our use of electricity is evolving. New technologies are changing how, when, and how much our customers use electricity supplied by the network. More cost reflective network tariffs may help customers better understand the network costs and benefits of their investments in electric vehicles, solar panels, and battery storage and energy efficiency measures.

With cost reflective network tariffs, if customers choose to use electricity in ways that reduce network costs, for example by using less power at peak times when the network loading is at its highest, these customers will be rewarded through lower network costs in their retail bills. This has the potential to reduce the need for substantial new investment in the network and helps keep costs down in the long term.

By having a better understanding of the costs of network services, customers can weigh up whether their use of the network represents a lower cost to them than investment in energy storage technologies, such as batteries.

## 4.1 Network tariff reform transition

We are investigating and consulting on network tariff reform options, with a view to introducing more cost reflective network tariffs. We are also commencing the development of our Tariff Structure Statement in accordance with new rule requirements.

Our network tariff strategy is broadly grouped in two areas:

1. Transitioning existing network tariffs to be more cost reflective.
2. Offering new demand based network tariffs as a choice for customers.

As part of our transition to more cost reflective network tariffs we initially proposed to remove access to the uncontrolled low voltage heating network tariff (that provides a heavily discounted network charge for hard wired heating and hot water, at the time our network is most heavily loaded) for new customers from 2017. Customers voiced strong concern about this, and we have amended our strategy.

Our updated strategy is now based on a longer term transition, which could take up to 15 years to deliver more cost reflective tariffs. We plan to transition over time from the present network tariffs to more cost reflective network tariffs. As we transition, we will work with retailers and customers to consider and manage outcomes.

We will make improvements to our network tariffs to make our network charges fairer for all our customers. It will take time to introduce cost reflective network pricing and we will gradually phase in new network tariff structures. We consider that this better balances community expectations and the path to better network

price signals. From 2017 therefore, we will offer choice by introducing new demand based network tariffs for small customers. Our initial view is that time of use demand based network tariffs may be the best long term network tariff structure to reflect the costs of providing network services, to benefit our customers and to satisfy the pricing principles in the National Electricity Rules.

We prepared a separate consultation paper titled *Demand based network tariffs – offering a new choice* that provides more information on our proposed approach to offering demand based network tariffs as a customer choice. This paper can be found on our website: [www.tasnetworks.com.au/consumer-engagement](http://www.tasnetworks.com.au/consumer-engagement).

It is important to remember that our revenue for each year is revenue capped; we can only recover the efficient revenue we are allowed by the Australian Energy Regulator to provide network services. Therefore, changing our network tariffs is not about increasing our revenue.

## 5 Consultation plan

Our consultation on network tariffs is an ongoing program of engagement and we will continue to consult following the submission of our Tariff Structure Statement in January 2016. The ongoing feedback we receive will be an important input into our development of the Tariff Structure Statement for the subsequent regulatory control period (commencing 1 July 2019).

We have established the TasNetworks Tariff Reform Working Group as an advisory group to help understand customer needs and issues. The TasNetworks Tariff Reform Working Group includes electricity retailers, customer advocacy groups, business associations and energy advisors. To date (late October 2015) we have conducted four working group meetings to develop member understanding and gather feedback on our network tariff strategy.

In addition, we have consulted with customers through surveys and a series of workshops in October 2014, and June, July, September and October 2015. We have also considered the feedback we received through a number of submissions on our initial network tariff strategy. Please note this paper does not incorporate the feedback we received during October.

**For this consultation, we are seeking feedback on our strategy to transition existing network tariffs to be more cost reflective.** Feedback will assist us in developing our Tariff Structure Statement that we must submit to the Australian Energy Regulator in January 2016. The Australian Energy Regulator will conduct its own consultation on our Tariff Structure Statement.

We will also continue to engage with our customers on network tariff reform.

Our network tariff strategy involves many elements. As described above we are broadly covering two main elements: the transition of the existing network tariffs to be more cost reflective and offering demand based network tariffs as a choice.

Elements of our network tariff strategy are under development include review of:

- existing time of use periods;
- increasing the service charge after the next regulatory control period that ends on 30 June 2019, to better reflect the underlying characteristics of our efficient network costs;
- the diversity of existing network tariffs offered across the network tariff suite;
- network tariffs offered to high voltage customers;
- network tariff trial outcomes and recommendations; and
- network tariff customer impact analysis for other customer segments (such as irrigation and nursing home customers).

## 6 Our customers

There are approximately 280,000 households, businesses and institutions that take their supply of electricity from the distribution network. A number of our customers are supplied via multiple network tariffs. For example many residential customers are assigned to both our Residential Low Voltage General network tariff ('residential' TAS31) and the Uncontrolled Low Voltage Heating network tariff ('uncontrolled energy' TAS41).

The table below provides a summary of our distribution customers and the electricity consumption for these customers. The customer numbers are reflective of the network tariffs we charge the retailers, noting that many customers are assigned to multiple network tariffs.

Network Tariff Customer Segments	Customer Numbers (by network tariffs)	Customer Numbers (%)	Total energy in 2014-15 (Gwh) <sup>4</sup>	% of total Energy
Residential	236,584	47	983	24
Small business	38,058	8	830	20
Controlled energy	24,558	5	58	1
Uncontrolled energy	191,540	38	831	20
Large business (low voltage)	864	0.17	513	12
Large commercial (high voltage)	130	0.03	790	19
Irrigation	3,248	1	125	3
Unmetered supply	3,585	1	31	1
<b>Total</b>	<b>498,567</b>	<b>100%</b>	<b>4,161</b>	<b>100%</b>

## 7 How network tariffs are applied

There are currently 24 different types of network tariffs, which depend on the customer type (for example, residential, commercial or industrial) and the customer's forecast usage. Apart from some very large industrial customers that have specific calculated network tariffs, each customer is allocated to a particular network tariff/s. A summary of our current network tariff classes and network tariffs is provided in Appendix A.

If a customer prefers a different type of network tariff and is eligible for the network tariff, a change can be requested through the customer's retailer. It is the retailer that ultimately recovers our network costs through its charges (retail tariffs) to the customer. However, if our network charges increase for a particular type of customer, retailers may be expected similarly to increase their charges to these customers.

<sup>4</sup> Relating to the distribution network only.

## 8 Customer feedback

Affordability concerns are a consistent theme of the feedback from the majority of customers. This is why our network tariff strategy is focused on delivering predictable and sustainable network prices. The affordability of electricity will continue to be an important issue for Tasmanians, particularly for vulnerable customers. Feedback from our customers has also highlighted concern that vulnerable customers may be left behind as the level of technology and innovation increases. We are advocating support for vulnerable customers by supporting the Government's action plan in the Tasmanian Energy Strategy to "monitor the effectiveness of energy concession arrangements to ensure that vulnerable Tasmanians continue to be properly supported"<sup>5</sup>.

We have heard consistent feedback from our customers that for network tariff reform to work effectively:

- customers want to better understand the changes that will be made to our existing network tariff suite and how we will transition over time;
- retailers will need to pass the network price signals through to customers via retail tariffs;
- customers voiced strong concern about the proposed removal of access to the uncontrolled low voltage heating network tariff for new customers from 2017;
- customers want to better understand how they can effectively manage their energy charges and how any changes will impact their charges;
- customers are concerned that a transition to more cost reflective network tariffs might penalise customers who remain on existing network tariffs;
- customers are concerned that changes to how we recover our efficient costs could lead to an increase in the network charge;
- customers are concerned about the impacts on some customers as a result of increasing service charges; and
- customers are concerned about the potential impacts of costs associated with advanced meters.

In this paper we propose a network tariff transition plan that takes account of these key themes and other customer feedback from our extensive consultation process.

**The insights gained, and the challenges and opportunities arising in the changing energy landscape have all helped to shape the development of our network tariff strategy.**

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<sup>5</sup> Tasmanian Government, Department of State Growth, *Tasmanian Energy Strategy – Restoring Tasmania's energy advantage*, 2015 – page 16.

## 9 Distribution pricing rule changes and compliance

The Australian Energy Market Commission published its final rule determination for Distribution Network Pricing Arrangements on 27 November 2014. This rule change has important implications for our distribution network tariff strategy as it requires us to demonstrate that our distribution network tariffs reflect the efficient cost of providing network services. So, we will need to comply with the following pricing principles:

- Each network tariff must be based on the long run marginal cost of providing the service.
- The revenue to be recovered from each network tariff must recover the network business' total efficient costs of providing services in a way that minimises distortions to network price signals and encourages efficient use of the network by customer class, through:
  - ensuring the revenue for each network tariff class sits between the bounds of the standalone and avoidable costs of supplying the customer classes (refer Appendix B); and
  - developing our network tariffs based on Long Run Marginal Costs (refer Appendix C).
- The impact on customers of changes in network tariffs must be considered and we have to ensure that customers can understand the network tariff structures. New network price structures can be gradually phased in.
- Network tariffs must comply with any Tasmanian specific legal requirements for pricing, and must do so transparently and only to the minimum extent necessary.
- The changes to the rules have made a significant change to the pricing process: in addition to lodging a distribution regulatory proposal that outlines total revenue to efficiently run the business each year, a Tariff Structure Statement is now also required to be submitted.

The network tariffs to apply are approved by the Australian Energy Regulator as part of its determination on the distribution regulatory proposal which will be finalised in the first half of 2017. This is in addition to the existing annual approval process for network tariffs and structures as part of the Pricing Proposal.

## 10 Network tariff strategy guiding principles

In consultation with our customers and customer advocacy groups, we have developed the following high level guiding principles in relation to network tariff design:

1. Network tariffs should facilitate the efficient recovery of revenue (efficiency).
2. Network tariffs should be as simple as possible and developed in consultation with customers and other stakeholders (simplicity).
3. Network tariffs should provide price signals to all customers, recognising that the cost of using the network varies at different times (efficient price signals).
4. We should calculate our network tariffs according to a well defined and clearly explained methodology (clearly explained).
5. We should consider the impacts on customers of any network tariff change, and introduce change over a period of time to manage the impacts on particular customers (customer impact).
6. Our network tariffs must comply with the regulatory rules, both nationally and locally (compliance).

### 10.1 Application of the principles to the network tariff transition

For any network tariff change, we will take into consideration and work to manage, the impacts on customers (customer impact principle). The network tariff transition plan has been designed recognising the significance of this key principle. We are proposing a transition plan that responds to customers' concerns by gradually transitioning the network tariffs over a long period of time in order to deliver lowest sustainable network prices to our customers.

There are a number of rule requirements described in the above section on distribution pricing rules compliance which must be met in order to ensure we develop cost reflective network tariffs and efficient network price signals.

These pricing rules requirements seek to ensure equitable and efficient allocation of network costs to enable customers to recognise and pay for the value the network provides to them. This is a key pillar of our network tariff strategy.

### 10.2 Review of our existing network tariffs

We have reviewed our existing network tariffs with aim of refining them to enable us to provide better price signals for our customers.

Our network tariff review found that:

- Our network tariffs are too heavily based on energy consumption. This pricing approach encourages customers to reduce energy consumption to save money, even at off-peak times. However, this may not result in any reduction in network costs. These costs must still be recovered, which means some customers are subsidising others.

- Large numbers of customers are responding to the ‘incorrect’ consumption based price signal by installing new technology to reduce consumption, which does not necessarily reduce network costs.
- Many network tariffs do not properly reflect the costs of providing the network service. For example, the uncontrolled low voltage heating network tariff for water heating and/or residential space heating is heavily cross subsidised by other customers. The network tariff allows consumption at off-peak rates at all times, including genuinely peak periods.
- There are opportunities to improve network prices signals to enable customers to make better consumption and investment decisions (which may include properly understanding the true costs and benefits of electric vehicles, solar panels, and battery storage and energy efficiency measures).
- Our network tariffs are not currently recovering the efficient costs of service provision for all customer classes. This means we are not recovering our total efficient costs from each customer class. This is discussed further in the next section of this paper.
- Better consumption and investment decisions produce better outcomes for everybody, and help to reduce our costs and the impact on our customers.

### 10.3 Total efficient cost allocation

The Australian Energy Regulator sets the revenue allowance for our network services; the revenue allowance represents the revenue we can recover from our customers. The amount of the revenue allowance is based on a forecast of the total costs that we will incur to provide an efficient level of network services to customers (total efficient costs). Therefore, our total efficient costs are equivalent to our revenue allowance as set by the Australian Energy Regulator.

Our total costs include:

- funding costs on previous investments;
- renewal and reinforcement expenditure;
- expenditure associated with running our business; and
- expenditure associated with accommodating growth.

Our total costs comprise expenditure associated with a number of different activities. Combined these costs are greater than costs solely related to work undertaken to accommodate growth, which is the basis of our long run marginal cost estimates. Long run marginal cost estimates are often the starting point for the development of network tariffs. This is because long run marginal cost based network tariffs provide customers with efficient price signals which can contribute to efficient usage and investment decisions by customers. This is discussed further in Appendix C.

We set and develop our network tariffs to recover our total costs which are reflected in our allowed revenue. We must ensure that the revenue expected to be recovered from each network tariff reflects the efficient costs of providing network services to customers that are assigned to that network tariff. This is the concept of the recovery of total efficient costs from each customer class. The methodology we use to derive our total efficient cost allocation by customer is not new. It is largely

consistent with the method that has been approved by the Australian Energy Regulator and applied as part of the current network tariff development processes.

Determining an allocation of efficient costs (revenue to be recovered) by network tariff requires our allowed revenue to be attributed to network tariffs via an assessment of underlying network cost drivers. There are a number of variable inputs which are used in the allocation process, and, for this reason, the total efficient cost by customer class will continue to change over time. Key inputs into the allocation process include:

- distribution revenue;
- a portion of the efficient costs of the transmission network services;
- number of connections by customer class and region;
- maximum demand for each customer class;
- consumption for each network tariff; and
- regulatory asset values for assets at each voltage level by region.

The allocation process broadly consists of three steps:

1. Revenues are allocated to different voltage levels and regions. The revenue is allocated on the basis of a particular allocation driver, these include:
  - asset type;
  - asset valuation; and
  - attributable operational and maintenance costs.
2. Revenue allocated to voltage levels is then further allocated to customer class, utilising a combination of the following allocation drivers:
  - demand; and
  - the number of connections.
3. The final step in the process is the allocation of revenues from the customer class to the network tariff. This is undertaken utilising a combination of demand, consumption and connection numbers.

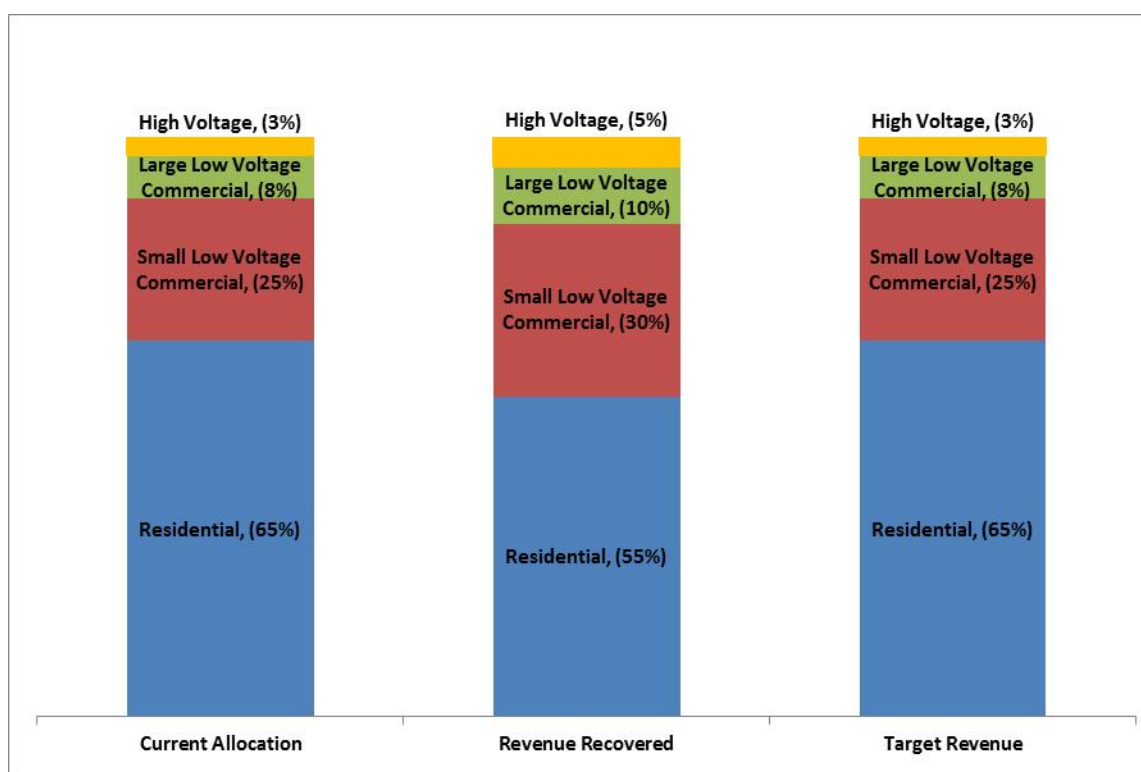
The end result is a total efficient cost related to each network tariff. The rules require a subsequent test to be applied to ensure efficient cost allocation, and also to ensure that our customers pay their way while not paying too much. This is the standalone and avoidable cost test which is outlined in Appendix B.

## 11 Transitioning towards recovery of our total efficient costs from each customer class

Our existing network tariffs are not currently based on an assessment of efficient costs for each customer class. This means that some customers will be cross subsidising other customers. We will therefore transition our expected revenue recovery from each network tariff to reflect an efficient cost allocation by customer class over time. Appendix D provides an outline of the network tariffs which are included in the customer classes shown.

Figure 1 below shows our efficient cost allocation by customer class as well as our current revenue recovery by customer class.

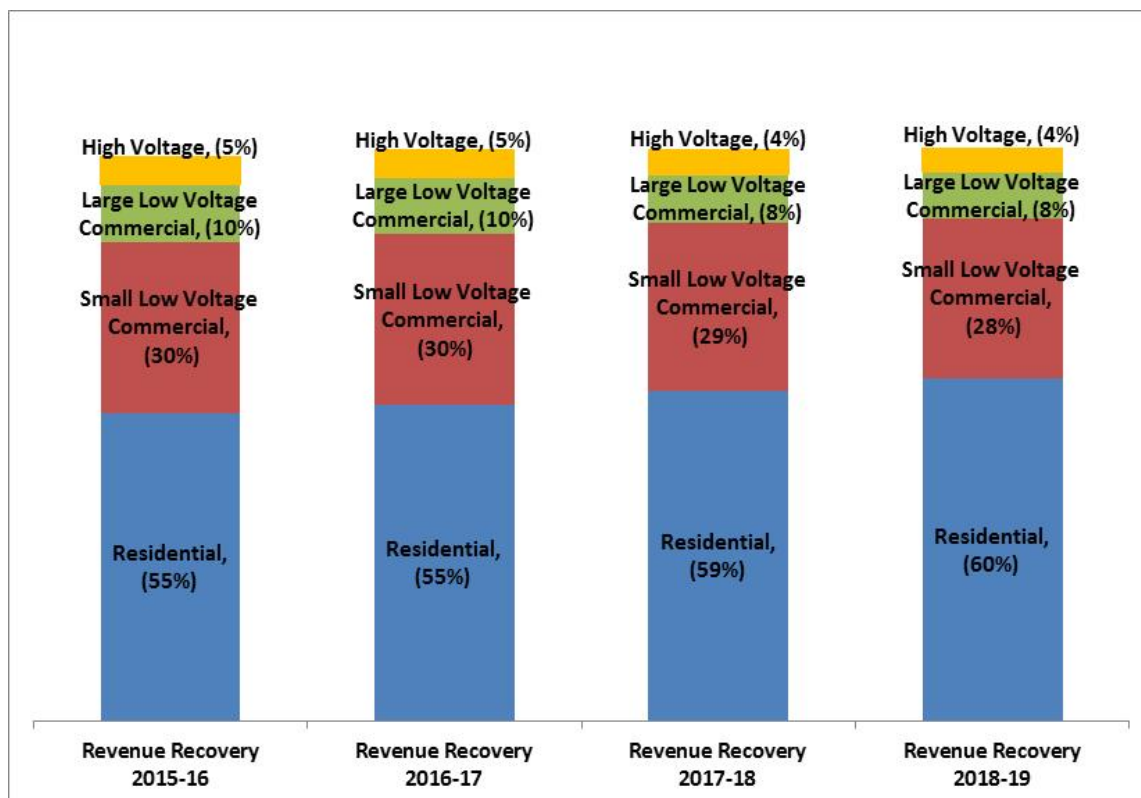
**Figure 1: Cost allocation and revenue recovery by customer class**



The network pricing objectives require that the network tariffs for each of our customers should reflect the cost of providing services to those customers. Therefore, gradually and over a 15 year time period we are transitioning the current network tariffs so that the cost attribution and revenue recovery is fairer for all our customers. We have commenced this transition and will continue to transition over the next and subsequent regulatory control periods.

Figure 2 below shows where we expect to be in terms of movement towards total efficient revenue recovery by customer class at the end of the next regulatory control period (2018-19).

**Figure 2: Forecast cost allocation and revenue recovery by customer class**



A key assumption in our network customer impact analysis (described below) is that forecast distribution revenue is lower in the next regulatory control period (the two year regulatory period from 1 July 2017 to 30 June 2019).

Figure 3 below shows the assumed total efficient revenue recovery by customer class in \$2015-16 million (constant dollar) terms. We have assumed the movement towards total efficient revenue recovery from the beginning of the next regulatory control period.

Because of the forecast decline in distribution revenue, we are recovering less revenue from residential customers (from \$225 million by end 2016-17 to \$221 million by the end of the next regulatory control period) even though we are increasing the forecast cost allocation attributable to residential customers (from 55% to 60%).

**Figure 3: Forecast cost allocation and forecast revenue recovery by customer class in \$2015-16 million - constant dollar terms**

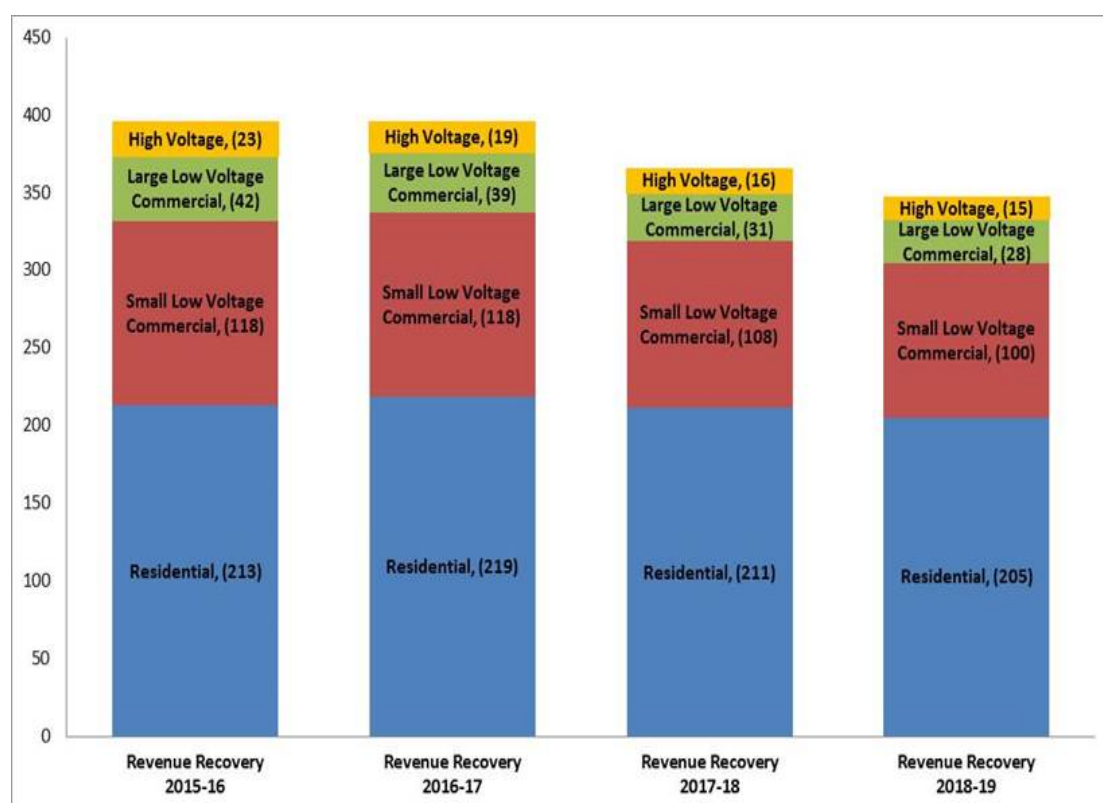
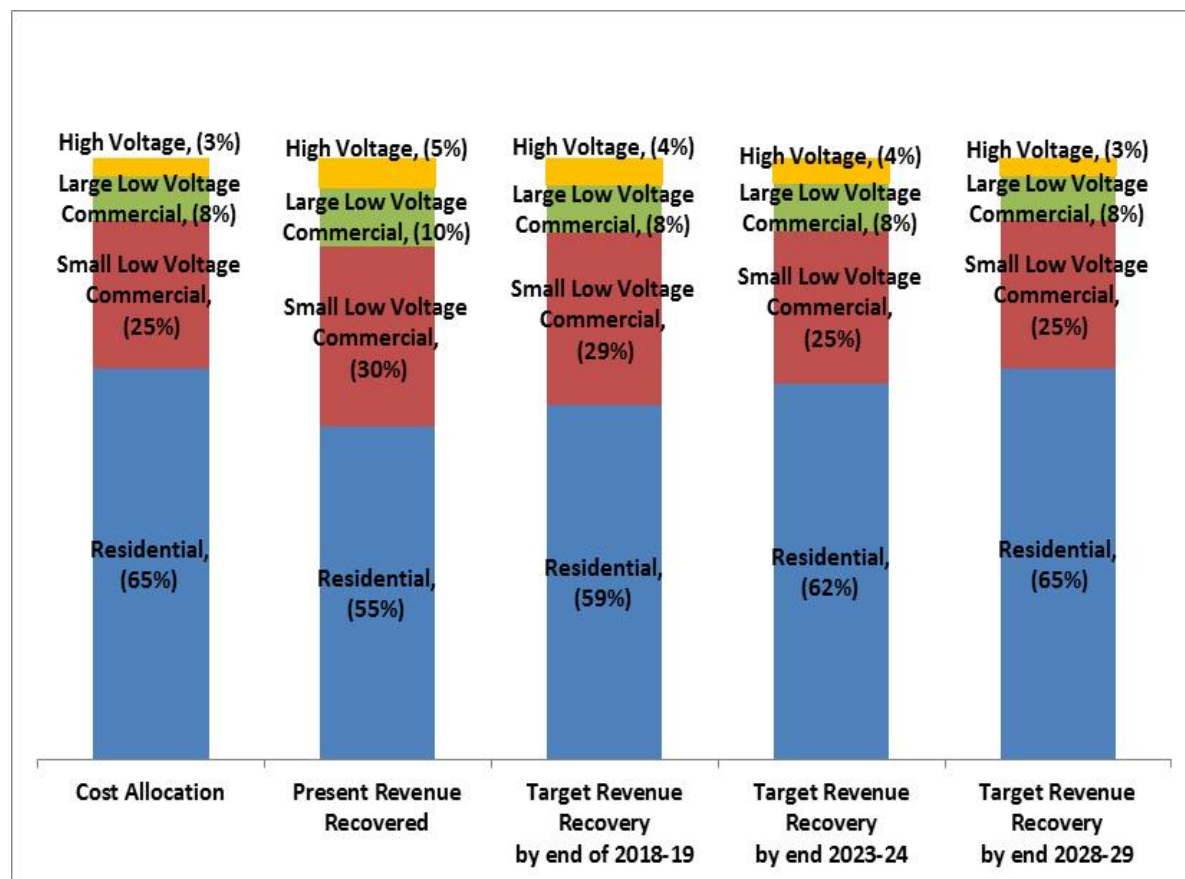


Figure 4 below shows where we expect to be in terms of movement towards total efficient revenue recovery by customer class at the end of the next regulatory control period (2018-19) as well as subsequent regulatory control periods.

**Figure 4: Forecast cost allocation and revenue recovery by customer class**



## 11.1 Changing the contribution of service charges and variable network tariff components

Our network tariff strategy is to gradually increase the service charges of our network tariffs. This better reflects the underlying characteristics of our network costs and supports the move to more efficient cost reflective price signals. The majority of our costs are fixed, particularly in the short term and, to some extent, are appropriately recoverable via a service charge. Historically, network tariffs were designed to recover the short run fixed costs associated with administrative functions and connection assets via service charges. Presently, approximately seventy five per cent of revenue relating to administrative costs and connection assets is recovered via service charges, while all further costs are recovered via variable network tariff components.

There are a number of reasons why gradually increasing the service charges over time is a fairer method and will result in a more efficient outcome. These reasons include:

- service charge increases will improve our price signalling and help customers understand the value of the energy exchange and grid access services we provide;
- we will be able to recover the costs associated with customer connection and ongoing maintenance of connection assets as well as business as usual functions using an appropriate pricing signal. In the short term these costs do not vary as a result of network utilisation, but rather are related to the number of customers we have connected to our network; and
- in providing appropriate service charge pricing for our customers, we will ensure that there is minimal distortion of network usage related price signals (that is, variable network tariff components). This is a requirement of the distribution pricing rules.

We have already commenced increasing the service charge components of our network tariffs and will continue this process in line with our focus to deliver predictable and sustainable network prices for our customers.

## **11.2 Appropriate changes to network tariff prices**

We want to ensure that our network tariffs provide consistent price signals for customers with similar usage profiles. This will result in fairer network charges for all our customers.

For historic reasons there are currently a number of discounted network tariffs within the network tariff suite. These discounted network tariffs include:

- Business Low Voltage Nursing Homes network tariff (TAS34);
- General Network – Business Curtilage network tariff (TASCURT); and
- Uncontrolled Low Voltage Heating network tariff (TAS41).

Customers on the Business Low Voltage Nursing Homes network tariff (TAS34) currently receive a discounted energy rate. The process of removing the discounted energy rate inherent in this tariff has been in progress for more than 10 years. We will continue the process of aligning this network tariff with other similar network tariff offerings, and will take advantage of any opportunities associated with lower revenue to accelerate the unwinding of this discounted tariff while managing price impacts.

Customers on the General Network – Business Curtilage network tariff (TASCURT) currently receive a discounted service charge rate. The discount has been decreased by ten per cent per annum from the commencement of the previous regulatory control period (from 2008). As outlined in our 2015-16 Pricing Proposal, the discount will be removed at an accelerated rate in future years until such a time as the daily charge achieves parity with the daily charge within the General Network – Business network tariff (TAS22).

The Uncontrolled Low Voltage Heating network tariff (TAS41) currently provides customers with a significantly discounted network energy rate for hard-wired heating and hot water. This network tariff is heavily utilised at the time our network is most heavily loaded. We have started to gradually rebalance the price of this discounted network tariff with the Residential Low Voltage General (TAS31) network tariff. This effectively means the price for TAS41 is increasing and the price for TAS31 is decreasing. We are continuing to gradually transition the discounted network tariff to be more cost reflective over a long period of time. We will continue to monitor and adjust our network tariffs in response to customer usage behaviour and market changes. This monitoring and refinement process will ensure that our network charges support cost reflective and fair outcomes for all our customers.

## 12 Network customer impact

The impacts of network tariff reform for customers will depend largely on how retailers choose to pass through or package network tariffs. It is the retailer that ultimately recovers our network costs through its charges (retail tariffs) to the customer. However, if our network charges increase for a particular type of customer, retailers may be expected similarly to increase their charges to these customers.

In Tasmania, most residential and small business customers are on standing offer retail tariffs that are approved by the Tasmanian Economic Regulator. Therefore, this regulatory process is also an important factor in determining how network charges are reflected in customer bills.

Over the longer term, network tariff reform will help deliver more predictable and sustainable electricity prices. We understand that the transition to more cost reflective prices under the Rules will impact different customers in different ways. We have undertaken analysis that looks at the way in which customers can expect to be impacted by the changes. Customer usage patterns and profiles are unique and do not necessarily reflect the average, so it is important to note that individual customer impacts will differ from the average customer impact.

The analysis aims to provide a network charge comparison of current network charges with indicative network charges up to the end of our next regulatory control period (2018-19). The analysis assumes a movement to efficient revenue recovery from each customer class over the full 15 year transition period<sup>6</sup>. As we continue to unwind cross subsidies there will be changes to the amount of revenue we will be recovering from different customer groups. This impacts on network charges and results in differing bill impacts for different customer classes.

It is important to note that due to the regulatory framework and the way our revenue is determined we will not recover additional revenue as a result of changes to our network tariffs.

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<sup>6</sup> Note: the transition period is based on a 2014-15 commencement date.

## 12.1 Assumptions underpinning indicative annual network charges

A high level impact summary for key customers segments is provided below. **The analysis is underpinned by network tariffs that have been developed for comparative purposes only, and use a range of assumptions. These network tariffs will not necessarily be representative of any final network price and should not be relied upon for that purpose.** The analysis has been presented in today's dollars (\$2015-16 constant dollar terms); this means that Consumer Price Index (CPI) increases will need to be added to determine network charges in 'dollars of the day'. In recent years annual CPI increases have ranged from 1.7 to 2.6 per cent per year.

As the analysis makes use of derived data, forecast data and parameters that are yet to be finalised. The analysis is underpinned by many assumptions, the major assumptions are provided below:

- Revenue entitlement is a major factor underpinning the derivation of price. The indicative prices have been developed assuming forecast revenue<sup>7</sup> of approximately \$396 million in 2015-16, \$405 million in 2016-17, \$385 million in 2017-18 and \$375 million in 2018-19 with charges presented in real (\$2015-16 constant) terms.
- Revenue recovered from each network customer class has been transitioned to reflect our forecast efficient revenue recovery from each customer class. This represents an unwinding of current cross subsidies. This is indicative only and further refinement over time is expected.
- The network tariff service charge components have been increased to account for the sunk costs associated with provision of the network service and also to ensure minimal distortion to the long run marginal cost signal.
- Consumption decline is assumed to continue in line with the recent trend.

## 12.2 High level impact summary for key customers segments

Figures 5, 6 and 7 below illustrate the typical network annual charge (\$2015-16 constant dollar terms) for medium, low and high usage residential customers on combined network tariffs Residential Low Voltage General (TAS31) and Uncontrolled Low Voltage Heating (TAS41) from 2015-16 to the end of the next regulatory control period (2018-19). The indicative network charges include the initial transition to efficient cost recovery by customer class. As illustrated below the analysis demonstrates a gradual rebalance of the discounted Uncontrolled Low Voltage Heating (TAS41) network tariff with the Residential Low Voltage General (TAS31) network tariff. This effectively means that the price for TAS41 is increasing and the price for TAS31 is decreasing. We are continuing to gradually transition the discounted network tariff to be more cost reflective over a long period of time.

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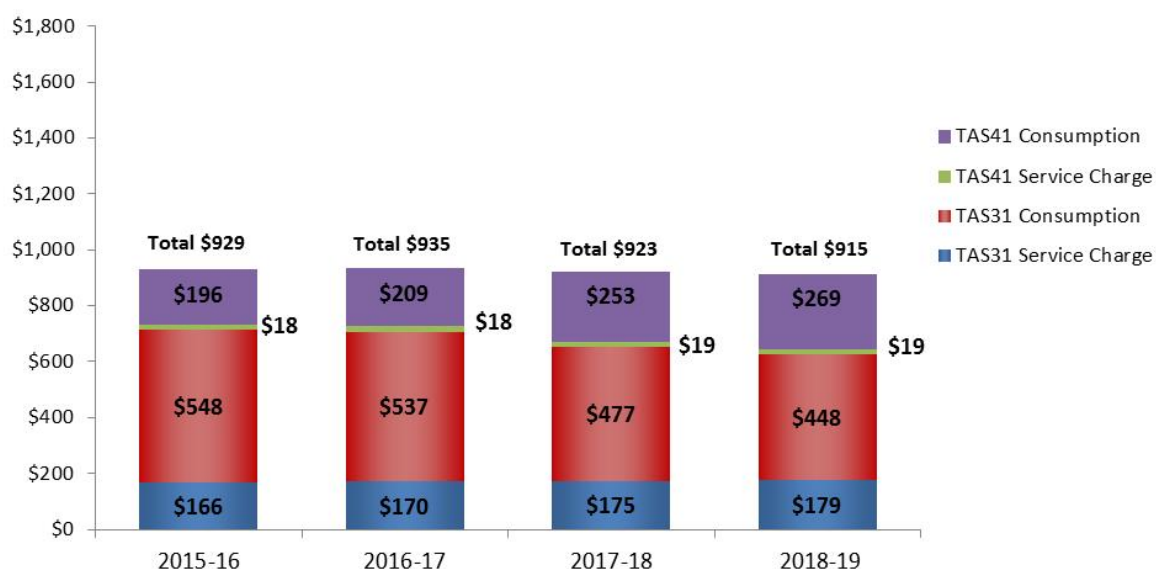
<sup>7</sup> Includes transmission cost pass through

As shown in Figure 5, the overall network charge for medium use customers is declining.

The contribution of each network tariff component to the overall network charge between 2015-16 and 2018-19 is changing. This is summarised and illustrated below:

- TAS31 service charge increases from 18% to 20%
- TAS31 consumption charge decreases from 59% to 49%
- TAS41 service charge sees no change
- TAS41 consumption charge increases from 21% to 29%.

**Figure 5: Residential Network Customer Impact (Residential Low Voltage General and Uncontrolled Low Voltage Heating network tariffs) – (medium usage customer) (\$2015-16 constant dollar terms)**

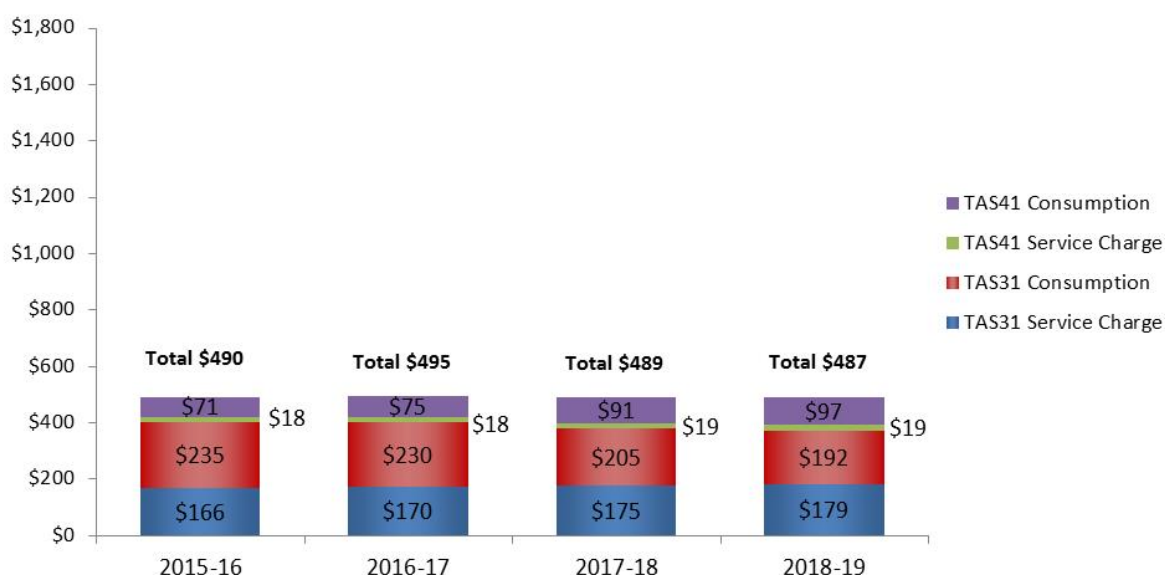


As shown in Figure 6, the overall network charge for low use customers is declining.

The contribution of each network tariff component to the overall network charge between 2015-16 and 2018-19 is changing. This is summarised and illustrated below:

- TAS31 service charge increases from 34% to 37%
- TAS31 consumption charge decreases from 48% to 39%
- TAS41 service charge sees no change
- TAS41 consumption charge increases from 14% to 20%.

**Figure 6: Residential Network Customer Impact (Residential Low Voltage General and Uncontrolled Low Voltage Heating network tariffs) – (low usage customer) (\$2015-16 constant dollar terms)**

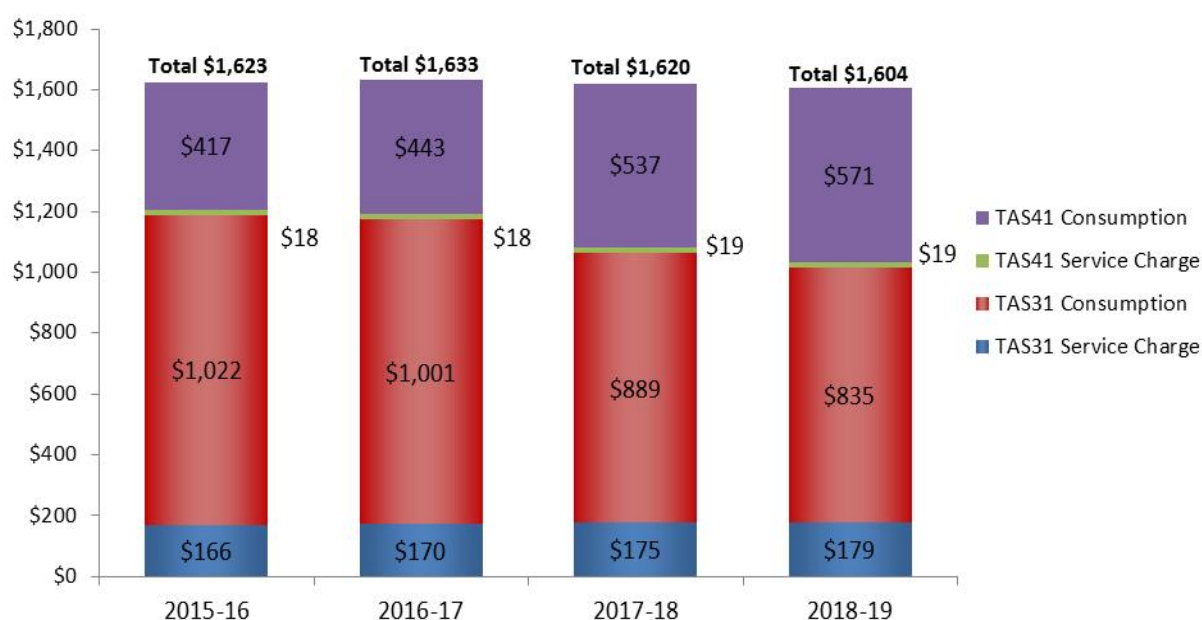


As shown in Figure 7, the overall network charge for high use customers is declining.

The contribution of each network tariff component to the overall network charge between 2015-16 and 2018-19 is changing. This is summarised and illustrated below:

- TAS31 service charge increases from 10% to 11%
- TAS31 consumption charge decreases from 63% to 52%
- TAS41 service charge sees no change
- TAS41 consumption charge increases from 26% to 36%.

**Figure 7: Residential Network Customer Impact (Residential Low Voltage General and Uncontrolled Low Voltage Heating network tariffs) – (high usage customer) (\$2015-16 constant dollar terms)**



Figures 8 and 9 below illustrate the typical network annual charge in \$2015-16 constant dollar terms, for a medium and high usage business customer on the Business Low Voltage General network tariff (TAS22). The figures also show the forecast annual network charge to the end of the next regulatory control period (2018-19) and include the initial transition to efficient cost recovery by customer class.

The low usage customer data is not included as these customers do not usually remain on the Business Low Voltage General network tariff (TAS22) for a full year, with customers transitioning to a different longer term tariff option. For this reason the typical low usage customer network charge is relatively low when compared to other network tariff charges.

Overall, a downward trend in network charges for the majority of commercial customers is expected. This reflects the transition of the current network tariffs so that cost attribution and revenue recovery is fairer for all our customers.

**Figure 8: Low Voltage Commercial Network Customer Impact (Business Low Voltage General network tariff) – (medium usage customer) (\$2015-16 constant dollar terms)**



**Figure 9: Low Voltage Commercial Network Customer Impact (Business Low Voltage General network tariff) – (high usage customer) (\$2015-16 constant dollar terms)**

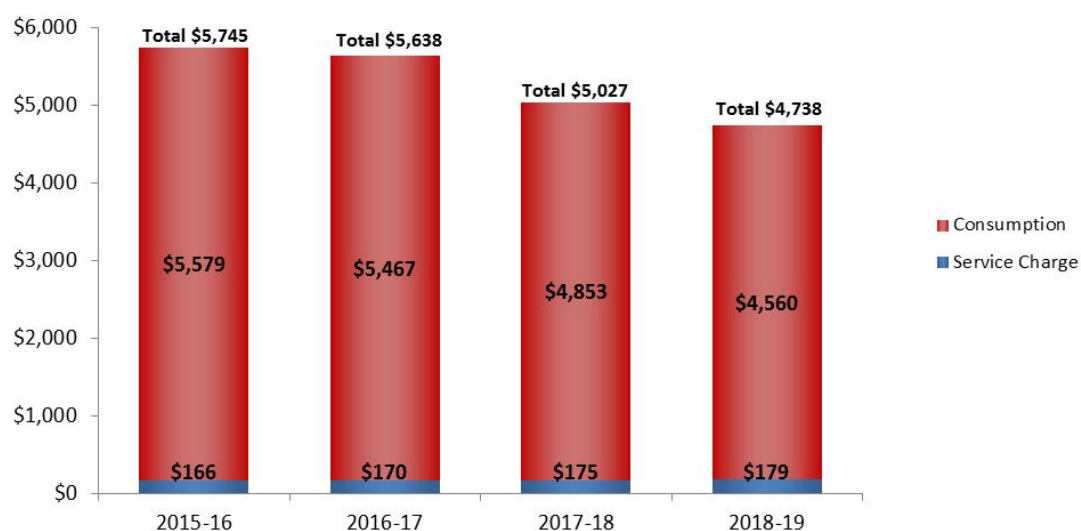
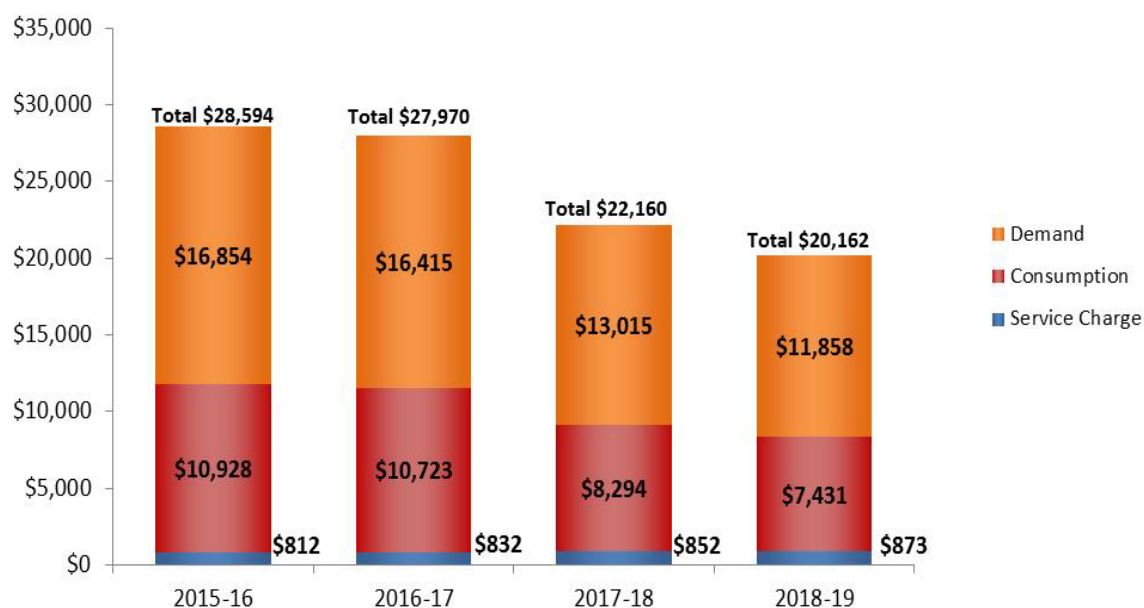


Figure 10 below illustrates the typical network annual charge in \$2015-16 constant dollar terms, for a medium usage business customer on the Business Low Voltage kVA demand network tariff (TAS82). The figure also shows the forecast annual network charge to the end of the next regulatory control period (2018-19) and include the initial transition to efficient cost recovery by customer class.

**Figure 10: Low Voltage Commercial Network Customer Impact (Business Low Voltage kVA Demand network tariff) – (medium customer) (\$2015-16 constant dollar terms)**



## 12.3 Summary – network customer impacts

Our network tariff strategy is to move towards more cost reflective network tariff structures that enable customers to:

- make more informed investment and electricity use decisions; and
- recognise and pay for the value the network provides to them by gradually:
  - transitioning how our efficient costs are allocated to make network tariffs fairer for all of our customers; and
  - increasing the service charges of our network tariffs to better reflect the underlying characteristics of our efficient network costs.

The analysis undertaken provides a summary of customer impacts utilising an average usage profile for particular customer groupings, for example, residential customers with medium consumption. Individual customers within a customer segment will have differing usage characteristics to the average.

The analysis shows that by transitioning towards recovery of our total efficient costs from each customer class, and by making network charges fairer for all customers, **on average for most customers network charges will be relatively stable or declining** over the next regulatory control period. This is consistent with our key focus of delivering predictable and sustainable network prices for our customers. We recognise that, developed in consultation with retailers, network tariffs can enable customers to recognise and pay for the value the network provides to them and make better investment and energy use decisions. Along with our strategy of transitioning towards recovery of efficient costs from each customer class, the introduction of demand based charging mechanisms will support a fairer network pricing structure for all customers.

## 13 Consultation with customers

The process of tariff reform will require striking a balance between cost-reflectivity and gaining customers' understanding and acceptance of our transition plan as well as our new network tariffs. To that end, we will continue consulting with our customers and the wider community about the process of tariff reform.

It will take time to transition to efficient revenue recovery by customer class. We are committed to delivering predictable and sustainable prices for our customers. We are also committed to continuing the conversation with the community about network tariff reform and moving towards pricing structures which are fairer for all our customers.

We welcome feedback and comments from customers on the transition of existing network tariffs to be more cost reflective.

We welcome customer feedback on the issues discussed in this paper, and any other issues of interest or concern. More specifically, we would welcome answers to the following questions:

1. Do you have feedback on our network tariff transition plan?
2. Has this paper helped you understand the changes we are making to improve the way we price our network services?
3. Is there anything in this Consultation Paper that hasn't been considered and is important to you?
4. Is there any other feedback you'd like to give us?

We are keen to receive your feedback on this paper. Your input will help to ensure that we have a strong foundation for the detailed Tariff Structure Statement we will submit for the 2017-2019 regulatory period in January 2016.

There is no standard format for submissions, but it will help us to understand your views if you indicate clearly which parts of the Consultation Paper you are commenting on. You may wish to provide answers to some or all of the questions in the paper, but you don't need to. You may raise any matter in your submission that is of interest or concern to you.

**You can make a submission by:**

- emailing your submission to: [DD17@tasnetworks.com.au](mailto:DD17@tasnetworks.com.au)
- going on line at: [tasnetworks.com.au/customer-engagement](http://tasnetworks.com.au/customer-engagement)
- posting your submission to: Leader Regulation, TasNetworks Pty Ltd, PO Box 606 Moonah Tas 7009

Unless your submission requests otherwise, we will publish all the submissions we receive on our website. We think this will promote better awareness of the issues of importance to different customers. We may also include excerpts from submissions in our Tariff Structure Statement.

In order for us to have sufficient time to consider your submission we must receive it by 5pm **Friday 20 November 2015**. We will accept later submissions, but may not be able to take into account when finalising our plans.

The Tariff Structure Statement will provide a summary of the key themes emerging from customer feedback on our network tariff reform engagement, and explain how we have taken feedback into account in formulating our plans.

**We look forward to receiving your feedback.**

## Appendix A: Current network tariffs classes and network tariffs

The table below provides a summary of our current network tariff offerings and the mapping from network tariff to network tariff class.

**Table 1: TasNetworks 2015-16 Tariff Offerings**

Network Tariff Class	Network Tariff	Description
High Voltage	Business High Voltage kVA Specified Demand (TASSDM)	<p>This network tariff is for customers where:</p> <ul style="list-style-type: none"> <li>connection is made to this site at high voltage; and</li> <li>the expected ATMD of the site is less than 2 MVA.</li> </ul> <p>Customers on this network tariff are able to agree with TasNetworks a "Specified Demand" for their electrical installation. Once agreed this value is used in the calculation of Network Use of System charges for the following period of no less than twelve months.</p> <p>A site connected to the TasNetworks' distribution network with this network tariff is not eligible for any other network tariff.</p>
	Business HV kVA Specified Demand >2MVA (TAS15)	<p>This network tariff is for customers where:</p> <ul style="list-style-type: none"> <li>connection is made to this site at high voltage; and</li> <li>the expected ATMD of the site is greater than 2 MVA.</li> </ul> <p>Customers on this network tariff are able to agree with TasNetworks a "Specified Demand" for their electrical installation. Once agreed this value is used in the calculation of NUoS charges for the following period of no less than twelve months.</p> <p>A site connected to the TasNetworks' distribution network with this network tariff is not eligible for any other network tariff.</p>
Irrigation	Irrigation Low Voltage Time Of Use (TAS75)	This low voltage time of use network tariff is for primary producers' business installations that are used solely for the irrigation of crops, which must be classified as ANZSIC class 01.
Large Low Voltage	Business Low Voltage kVA Demand (TAS82)	This network tariff is for installations that are not private residential dwellings taking low voltage 3-phase supply.
Small Low Voltage	Business Low Voltage General (TAS22)	This is the basic, low voltage network tariff for installations that are not private residential dwellings.
	Business Low Voltage Nursing Homes (TAS34)	<p>This low voltage network tariff is applicable only to those businesses registered as aged care facilities.</p> <p><b>This network tariff is obsolete, with no new connections allowed.</b></p>

Network Tariff Class	Network Tariff	Description
	General Network – Business, Curtilage (TASCURT)	<p>This network tariff is for rural customers having a single low voltage connection point but requiring more than one meter due to site layout.</p> <p>The single connection point must supply an installation qualifying for, and being supplied on the General Network - Residential network tariff.</p> <p><b>This network tariff is obsolete, with no new connections allowed.</b></p>
	Business Low Voltage Time Of Use (TAS94)	This is the basic, time of use low voltage network tariff for installations that are not private residential dwellings.
Residential	Residential Low Voltage General (TAS31)	This network tariff is for low voltage installations that are premises used wholly or principally as private residential dwellings.
	Residential Low Voltage PAYG (TAS101)	<p>This network tariff supports the Aurora Pay As You Go product and is not to be used for any other application. This network tariff is for customers that have a specialised PAYG meter installed for the provision of the Pay As You Go product.</p> <p>This network tariff is for low voltage installations that are premises used wholly or principally as private residential dwellings.</p> <p><b>This network tariff is obsolete, with no new connections allowed.</b></p>
	Residential Low Voltage PAYG Time Of Use (TAS92)	<p>This time of use network tariff supports the Aurora Pay As You Go product and is not to be used for any other application. This network tariff is for customers with a basic meter and Payguard meter configuration for the provision of the Pay As You Go product.</p> <p>This network tariff is for low voltage installations that are premises used wholly or principally as private residential dwellings.</p>
	Residential Low Voltage Time Of Use (TAS93)	This time of use network tariff is for low voltage installations that are premises used wholly or principally as private residential dwellings.
Uncontrolled Energy	Uncontrolled Low Voltage Heating (TAS41)	<p>This network tariff is for low voltage installations.</p> <p>In installations that are private residential dwellings, this network tariff:</p> <ul style="list-style-type: none"> <li>is for water heating and/or residential space heating and/or domestic indoor pool heating only.</li> </ul> <p>In installations that are not private residential dwellings, this network tariff:</p> <ul style="list-style-type: none"> <li>is for water heating only.</li> </ul>

Network Tariff Class	Network Tariff	Description
Controlled Energy	Controlled Low Voltage Energy – Off Peak with afternoon boost (TAS61)	<p>This off-peak network tariff is for low voltage installations and includes an ‘afternoon boost’ component.</p> <p>In installations that are private residential dwellings, this network tariff:</p> <ul style="list-style-type: none"> <li>• is for water heating and/or residential space heating and/or other “wired in” appliances as approved by TasNetworks; and</li> <li>• may be used for heating swimming pools, including those that incorporate a spa. Note that an individual spa from which the water goes to waste after use may not be connected on this tariff.</li> </ul> <p>In installations that are not private residential dwellings, this network tariff:</p> <ul style="list-style-type: none"> <li>• is for water heating and/or space heating and/or other “wired in” appliances as approved by TasNetworks.</li> </ul>
	Controlled Low Voltage Energy – Night period only (TAS63)	<p>This network tariff is for low voltage installations and is only available during off-peak periods.</p> <p>In installations that are private residential dwellings, this network tariff:</p> <ul style="list-style-type: none"> <li>• is for water heating and/or residential space heating and/or other circuits as approved by TasNetworks; and</li> <li>• may be used for heating swimming pools, including those that incorporate a spa. Note that an individual spa from which the water goes to waste after use may not be connected on this tariff.</li> </ul> <p>In installations that are not private residential dwellings, this network tariff:</p> <ul style="list-style-type: none"> <li>• is for water heating and/or space heating and/or other circuits as approved by TasNetworks.</li> </ul>
Unmetered	UMS Low Voltage General (TASUMS)	<p>This network tariff is for small, low voltage, low demand installations with a relatively constant load profile. For example:</p> <ul style="list-style-type: none"> <li>• illuminated street signs;</li> <li>• public telephone kiosks;</li> <li>• electric fences;</li> <li>• two-way radio transmitters;</li> <li>• fixed steady wattage installations;</li> <li>• traffic lights; and</li> <li>• level crossings.</li> </ul> <p>All installations on this network tariff must have all components permanently connected. For the avoidance of doubt, an installation containing a power point does not qualify for this network tariff.</p>

Network Tariff Class	Network Tariff	Description
Streetlights	UMS Low Voltage Public Lighting (TASUMSSL)	<p>This network tariff is for customers that have a lighting service provided by TasNetworks.</p> <p>This network tariff does not include charges for the installation and/or replacement of lamps. Costs for the installation or replacement of lamps are an additional charge.</p>
Individual Tariff Calculation	Individual Network Tariff Calculation	<p>Individual Tariff Calculation (ITC) network tariffs will typically apply to customers with an electrical demand in excess of 2.0 MVA, or where a customer's circumstances in a pricing zone identify the average shared network charge to be meaningless or distorted. ITC network tariffs are determined by modelling the connection point requirements as requested by the customer or their agents.</p> <p>ITC prices are based on actual transmission use of system charges for the relevant transmission connection point, plus charges associated with the actual shared distribution network utilised for the electricity supply, plus connection charges based on the actual connection assets utilised. This provides the greatest cost reflectivity for this type of customer and is feasible since the number of such customers is relatively small.</p> <p>Terms and conditions for these customers are contained within individually negotiated connection agreements.</p>
Embedded Generator	Residential Low Voltage Import Transitional (TASX1I)	<p>This network tariff is for the recording of 'export energy' for those residential installations that import energy into the distribution system and are eligible for the residential transitional feed-in tariff rate.</p> <p>Consistent with the provisions of clause 6.1.4 of the Rules, TasNetworks does not apply a charge for this network tariff.</p> <p>Connection charges for embedded generation will always be treated on an individually calculated basis. Terms and conditions for these customers are contained within individually negotiated connection agreements.</p>
	Business Low Voltage Import Transitional (TASX2I)	<p>This network tariff is for the recording of 'export energy' for those commercial installations that import energy into the distribution system and are eligible for the business transitional feed-in tariff rate.</p> <p>Consistent with the provisions of clause 6.1.4 of the Rules, TasNetworks does not apply a charge for this network tariff.</p> <p>Connection charges for embedded generation will always be treated on an individually calculated basis. Terms and conditions for these customers are contained within individually negotiated connection agreements.</p>

Network Tariff Class	Network Tariff	Description
	Residential LV Import Fair and Reasonable (TASX4I)	<p>This network tariff is for the recording of 'export energy' for those residential installations that import energy into the distribution system and are eligible for the standard feed-in tariff rate.</p> <p>Consistent with the provisions of clause 6.1.4 of the Rules, TasNetworks does not apply a charge for this network tariff.</p> <p>Connection charges for embedded generation will always be treated on an individually calculated basis. Terms and conditions for these customers are contained within individually negotiated connection agreements.</p>
	Business Low Voltage Import Fair and Reasonable (TASX5I)	<p>This network tariff is for the recording of 'export energy' for those commercial installations that import energy into the distribution system and are eligible for the standard feed-in tariff rate.</p> <p>Consistent with the provisions of clause 6.1.4 of the Rules, TasNetworks does not apply a charge for this network tariff.</p> <p>Connection charges for embedded generation will always be treated on an individually calculated basis. Terms and conditions for these customers are contained within individually negotiated connection agreements.</p>
	Non-Qualifying Import (TASX6I)	<p>This network tariff is for the recording of 'export energy' for those installations that import energy into the distribution system and are not eligible for any feed-in tariff arrangement.</p> <p>Consistent with the provisions of clause 6.1.4 of the Rules, TasNetworks does not apply a charge for this network tariff.</p> <p>Connection charges for embedded generation will always be treated on an individually calculated basis. Terms and conditions for these customers are contained within individually negotiated connection agreements.</p>

## Appendix B: Standalone and avoidable costs

There is a standalone and avoidable cost efficiency test which is inbuilt into the distribution pricing rule requirements. This test is designed to ensure that our customers pay their way while not paying too much.

The avoidable costs for a network tariff class are the theoretical cost savings that would be made if the customers in that class were to cease to exist whilst all other customers in other network tariff classes remained. This is often a relatively low value as much of our network is utilised by more than one network tariff class and the avoided costs only include assets specifically dedicated to those customers and a portion of operating costs reflecting the incremental costs of supplying each customer.

Requiring that revenue from a network tariff class to be above the avoidable cost ensures our customers pay their way. This makes sense because if the revenue from these customers was less than the avoidable costs other customers would be better off if those customers did not exist.

The standalone cost for a network tariff class is the theoretical cost of building and operating a network designed solely for that class of customers. This is always relatively high; this is because there are economies of scale from using shared assets to supply multiple network tariff classes.

By requiring revenue from a network tariff class to be below the standalone cost we are ensuring that our customers are not paying too much. This also makes sense as we do not want to incentivise inefficient behaviour such as asset duplication or customers opting to leave the grid as a result of inefficient network price signals.

## Appendix C: Long run marginal costs

To enable customers to make informed decisions, it is important that network tariffs provide price signals that relate to the costs associated with customer decisions and the resultant network cost impacts. Prices set on the basis of the marginal costs provide an effective signalling function to ensure our customers make efficient usage decisions. Long run marginal cost measures how total costs change as a result of a change in demand (incremental); it assumes that all inputs can be feasibly altered so as to capture the costs associated with building an additional unit of network capacity.

We are required to use our estimates of long run marginal cost as a basis for our network tariffs. This however does not mean setting every tariff at the long run marginal cost estimate as we must also give consideration to the remaining pricing principles.

Meeting network peak demand is the primary driver underpinning network augmentation or capacity related costs. Therefore, in order to provide our customers with an effective pricing signal linked to the drivers of future network costs, we are proposing to introduce new network demand based tariffs with a time of use element. The peak price components of these network tariffs will be based on our long run marginal cost estimates. The rules require that minimum distortions are made to the long run marginal cost pricing signal. This means that sending an alternative variable price signal should be avoided where possible. One way to achieve minimal distortion is to recover the residual amount (total efficient costs less the long run marginal cost component) is via a service charge.

We prepared a separate consultation paper titled *Demand based network tariffs – offering a new choice* that provides more information on our proposed approach to offering demand based network tariffs as a customer choice. This paper can be found on our website: [www.tasnetworks.com.au/consumer-engagement](http://www.tasnetworks.com.au/consumer-engagement).

## Appendix D: Network tariffs and customer classes

For illustrative purposes there are a number of network tariffs which comprise each customer class depicted in figures within section 11 of this paper. The network tariffs that have been grouped into the depicted customer classes, the grouping of network tariff to customer class is provided below.

- Residential customer class includes the following network tariffs:
  - Residential Low Voltage General (TAS31);
  - Residential Low Voltage Time of Use (TAS93);
  - Residential Low Voltage Pay As You Go (TAS101);
  - Residential Low Voltage Pay As You Go Time of Use (TAS92);
  - Uncontrolled Low Voltage Heating (TAS41)<sup>8</sup>;
  - Controlled Low Voltage Energy – Off Peak with afternoon boost (TAS61)<sup>9</sup>; and
  - Controlled Low Voltage Energy (TAS63)<sup>10</sup>.
- Small Low Voltage Commercial customer class includes the following network tariffs:
  - Business Low Voltage General (TAS22);
  - Business Low Voltage Nursing Homes (TAS34);
  - General Network – Curtilage (TASCURT);
  - Business Low Voltage Time of Use (TAS94);
  - Irrigation Low Voltage Time of Use:
  - Unmetered Low Voltage Supply General (TASUMS); and
  - Unmetered Supply Low Voltage Public Lighting (TASUMSSL).
- Large Low Voltage Commercial customer class includes the following network tariff:
  - Business Low Voltage kVA Demand (TAS82)
- High Voltage customer class includes the following network tariffs:
  - Business High Voltage kVA Specified Demand (TASSDM);
  - Business High Voltage kVA Specified Demand (>2.0 MVA) (TAS15); and
  - Individually Calculated Tariffs (ITC).

<sup>8</sup> Noting that this network tariff is also available to commercial customers, however the vast majority of customers utilising this network tariff are residential customers.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid.