UNITED ENERGY

Shape our energy future together

Tariff Structure Statement 2017-20

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On 27 November 2014, the AEMC made a new national electricity rule that requires distribution network businesses to develop prices that better reflect the costs of providing services to customers.

This document is United Energy's Tariff Structure Statement (TSS), for the period commencing 1 January 2017.

Highlights of our tariff reform journey

THIS IS OUR FIRST TARIFF STRUCTURE STATEMENT

- It is an important step on the path to the network of the future
- We can deliver long term savings to customers if we are able to reduce demand at peak times.

THE ELECTRICITY INDUSTRY IN VICTORIA IS CHANGING

- We are moving away from the traditional energy supply chain to a dynamic new energy sector
- Customers are now more engaged and traditional pricing structures won't provide efficient incentives as we move into the future.

WE HAVE CONSULTED EXTENSIVELY AND LISTENED TO OUR STAKEHOLDERS

- Our residential and business customers
- Customer advocates
- Electricity retailers
- State and local governments
- And other stakeholders.

NETWORK TARIFF REFORM IS PART OF A WIDER INDUSTRY TRANSFORMATION THAT WILL:

- Incentivise demand management solutions
- Encourage competition
- Faciliate storage technologies
- Reduce long term costs for customers.

OUR TARIFF REFORM PROPOSAL INTRODUCES:

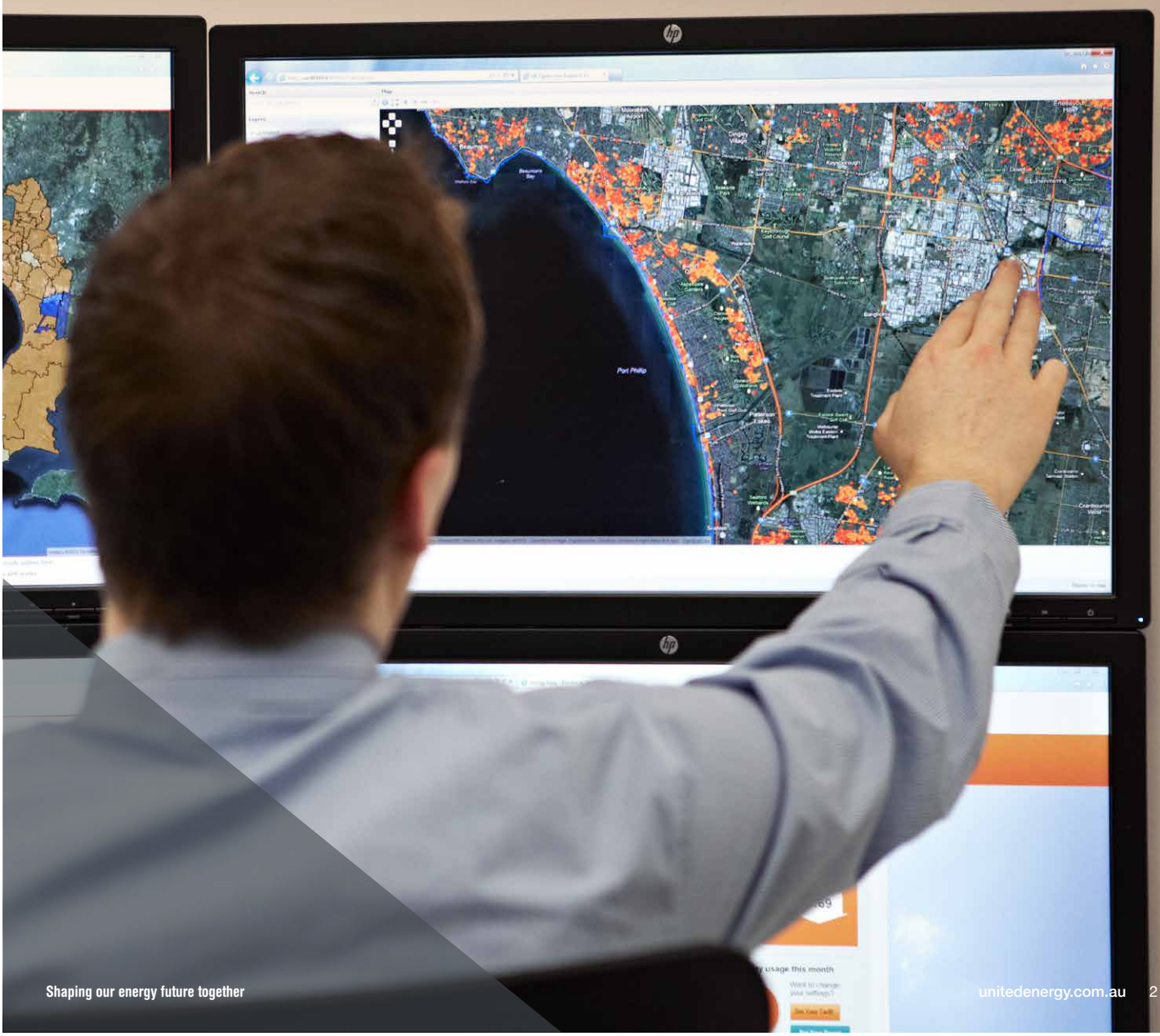
- A demand component, measured between 3-9pm on workdays for all residential customers
- A demand component, measured between 10-6pm for all medium customers not currently on cost-reflective tariffs from 1 Jan 2017.

MOVING FORWARD, WE PROPOSE:

- Demand elements increase slowly to minimise customer impacts
- A number of new and innovative optional tariffs for small customers
- No change to existing cost-reflective large customer structures.

THESE IMPORTANT, REVENUE NEUTRAL REFORMS WILL DELIVER REAL LONG TERM BENEFITS TO CUSTOMERS AND ARE AN IMPORTANT STEP IN BUILDING THE NETWORK OF THE FUTURE.

With the evolution of solar generation and storage technologies, the electricity grid is playing an increasingly important role in facilitating energy trade between parties – one which has the potential to deliver lower cost energy solutions for all customers in the future.



Overview

THE ELECTRICITY INDUSTRY IS FACING A PERIOD OF SIGNIFICANT CHANGE AND OPPORTUNITY.

In the past the energy supply network was simple and linear.

Large scale, centrally located generators produced energy that was transported through the transmission network, to the distribution network and then on to the customer. Energy flowed in one direction and the systems were centrally planned.

Today the world is very different.

The evolution of solar generation means that almost any small user can be a generator with energy flowing in different directions at different times of the day, creating a much more dynamic integrated system. Solar is just the start of the story. In the future, we expect distributed generation to interact with various forms of local storage technology and energy management systems, giving customers more options in how they use the grid and how they manage their energy usage.

The grid will play an increasingly important role in facilitating trade between parties. This represents a fundamental change to the electricity service delivery business model, that if managed successfully, could deliver lower cost energy solutions for all customers.

The evolution of solar generation means that almost any small user can be a generator with energy flowing in different directions at different times of the day, creating a much more dynamic integrated system.

Within this dynamic environment, cost-reflective network tariffs can play a central role in facilitating better outcomes for customers.

The potential benefits include:

- Enabling customers to make efficient decisions regarding their use of the network particularly at peak demand times
- Treating customers equitably by removing existing cross-subsidies
- Ensuring that we only build network capacity when it is efficient to do so
- Facilitating the efficient deployment of new and innovative technologies and solutions such as energy storage and demand management systems.

In the absence of cost-reflective network prices, these benefits will be substantially diminished or prevented altogether.

In this context, in November 2014 the Australian Energy Market Commission (AEMC) made a new National Electricity Rule[1] that requires distribution network businesses to develop prices that better reflect the costs of providing services to customers.

The Rules establishes a new pricing objective and pricing principles to guide tariff setting[2]. The key change is the requirement that each tariff be based on the Long Run Marginal Cost (LRMC) of providing network services. Under the new Rule, network pricing will be more cost-reflective, thereby providing more efficient signals for investment and usage decisions.

1. *AEMC, National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014, 27 November 2014.*
2. *National Electricity Rules, clauses 6.18.5(a) and 6.18.5(e) to (g).*

25%

Of Victorians live in our network distribution area.

THE RULE CONTAINS NEW PROCESSES AND TIMEFRAMES FOR SETTING NETWORK PRICES.

Distributors must consult with customers and retailers to develop a TSS, which outlines the price structures that will apply for the regulatory period[3].

The statement is subject to approval by the AER as part of the regulatory reset process. Each distributor is also required to publish an indicative pricing schedule to provide consumers and retailers with the most up-to-date information on likely price levels throughout the regulatory period. The new process is intended to improve the certainty, transparency and timeliness of network pricing.

This document is our first TSS. It covers the four year period commencing 1 January 2017, and establishes an overall direction for our future tariffs.

We have consulted widely with customers, retailers, customer advocates, government and other stakeholders to develop proposed tariff structures that are cost-reflective, readily understandable and compliant with the Rules.

We regard the setting of tariff structures as an evolutionary process. As such, this document sets out our tariff structures for the current period, including some tariff options that may become increasingly important in the future.

We will continue to monitor changes in the demand on our network as customers, retailers and other service providers respond to the new price signals. As we progress along the tariff reform path, we are committed to continuous consultation with customers, retailers, government, and other stakeholders to ensure that our proposals have broad support.

The remainder of this document is structured as follows:

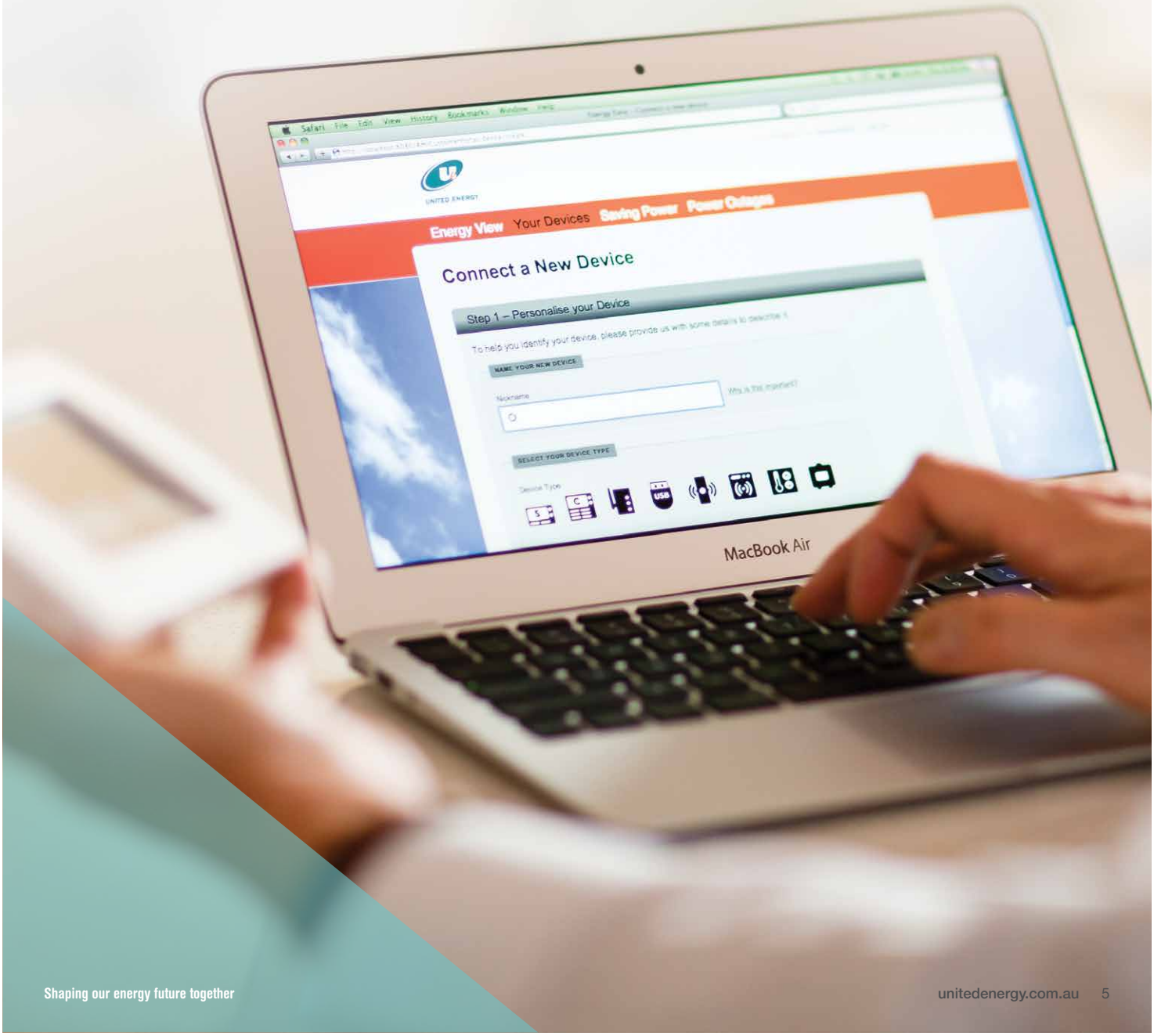
- ***Section 3*** provides an overview of the factors that are driving the need for tariff reform
- ***Section 4*** sets out our objectives for tariff reform, and the Rules requirements that we must satisfy
- ***Section 5*** describes the different options we have considered; provides an overview of stakeholder feedback; and the rationale for our preferred approach
- ***Section 6*** describes how we propose to implement our tariff proposals, including the transition path from today's tariffs to our longer term vision
- ***Section 7*** sets out our approach to setting tariffs and includes our tariff classes and the structure and charging parameters for each proposed tariff
- ***Section 8*** includes a compliance checklist, glossary and list of external appendices that provide more detailed information to demonstrate that we have met our compliance obligations under the Rules.

This TSS is also accompanied by an **overview paper**, which describes how we have engaged with customers, retailers, customer groups, government and other stakeholders in developing our tariff proposals, and how we have sought to address specific issues and feedback.

We will continue to monitor changes in the demand on our network as customers, retailers and other service providers respond to the new price signals.

3. *Transitional arrangements apply in this regulatory period, which delay the commencement of United Energy's first tariff structure statement until the start of the second year of the regulatory period, being 1 January 2017.*

We recognise that in the future, customers will have the capability to affect network flows and system maximum demand through energy storage, new energy uses and energy management.



Our future vision of the electricity network drives our tariff reform proposal.

Driving change

THE ELECTRICITY INDUSTRY IS UNDERGOING MAJOR CHANGE, WHICH IS BEING DRIVEN BY CUSTOMERS AND TECHNOLOGY.

3.1 A RAPIDLY CHANGING ENVIRONMENT

The traditional electricity supply chain managed energy flows in only one direction, from generators to the transmission and distribution networks, and on to customers. It encouraged a central planning philosophy, with clear separation of roles and responsibilities.

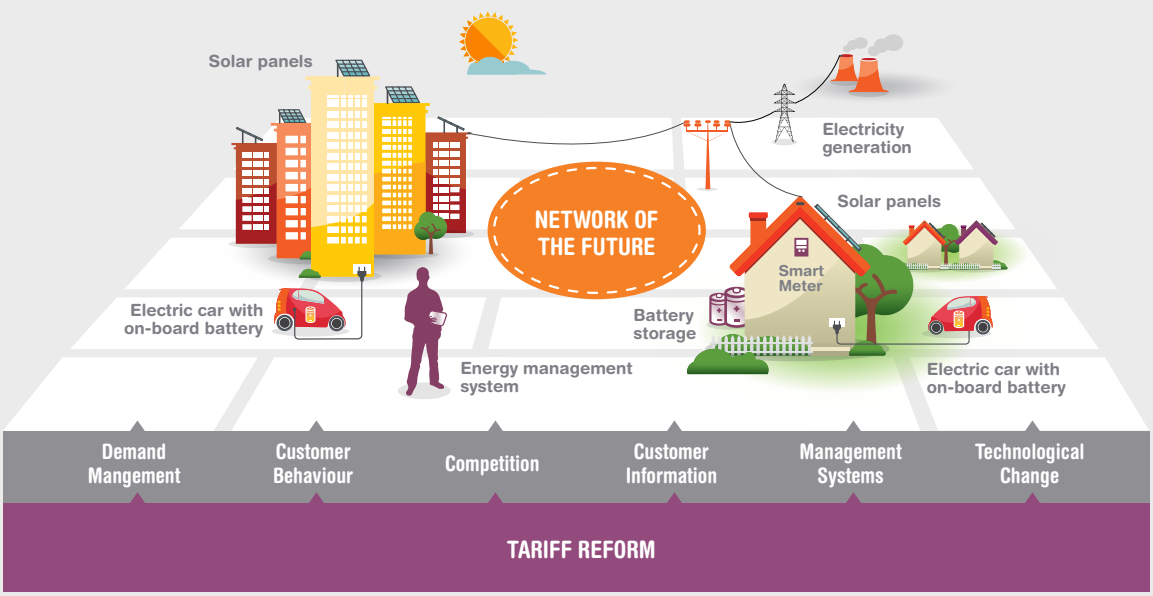
Today the industry is fundamentally different, and it continues to change rapidly. It is this future vision of how the electricity might look which should inform our network tariff design. Our vision for the 'Network of the Future' recognises the central position of customers in the transformed energy service supply chain. We recognise that customers will have the capability to affect network flows and system maximum demand through energy storage, new energy uses and energy management.

The 'Network of the Future' means better, lower cost energy solutions for customers.

And with new technologies developing and getting cheaper and more accessible, and customers becoming more active, the pace of change is only going to accelerate. The 'Network of the Future' means better, lower cost energy solutions for our customers. To achieve this vision we must have the right commercial and regulatory frameworks in place. This is a whole of industry challenge.

Tariff reform is a critical pillar supporting the efficient deployment of new technologies, energy management systems, distributed generation and storage.

Alongside tariff reform, we are actively engaging with customers to help manage cost and peak demand through innovative approaches such as our Summer Saver Trials. Before outlining our proposed tariff reforms, we must first explain why our existing distribution tariffs can and should be improved.



REFLECTING COSTS MEANS LOWER ENERGY COSTS FOR CUSTOMERS IN THE LONG TERM.

3.2 THE CHALLENGE OF CURRENT NETWORK TARIFFS

In the past, generation, transmission, distribution and retail activities were combined in a single, state-owned corporation and metering technology was less sophisticated than it is today.

The only viable metering options for residential and commercial customers were to measure usage or maximum demand over a defined period, which was determined by the manual meter reading schedule.

Given the limitations of metering technology, the adoption of usage based tariffs was the best approach available at that time.

As generation was the corporation's largest short term variable cost, it was appropriate to meter and charge customers on a usage basis. Central planning could take care of the longer term investments to supply an ever growing demand for electricity.

The industry is no longer centrally planned, static or vertically integrated. The cost of providing distribution services does not depend on energy usage.

Instead, our costs are driven by size of the network we must build to accommodate the highest summer peak, which may occur once every 10 years depending on weather.

More than ten years ago, we commenced phasing in cost-reflective network tariffs for our large industrial and commercial customers. The introduction of these tariffs has been very successful in demonstrating customer capability to understand and respond to price signals. Large customers have assessed and in many case undertaken demand side management initiatives, including power factor correction, in response to the KVA demand element within the tariffs.

Current tariffs appear to be working well from a number of perspectives:

- The AER determines our revenue allowance to ensure that it reflects the efficient costs of providing network services
- Our network tariffs recover our total revenue allowance in accordance with the AER's determination
- We benchmark well against our peers nationally and internationally.

Residential and smaller commercial customers, who make up 99% of our customers and 51% of the energy consumed on our network, are on tariffs that do not signal the cost of future investment. The introduction of a more cost-reflective tariff for these customers could unlock additional efficiency improvements via:

- Reduced long term investment in peak demand
- Elimination of unintended cross-subsidies between customers.

Our costs are driven by demand, because we must build the network to accommodate the highest summer peak, which may occur once every 10 years depending on weather.

25%

The portion of our network's capacity that is required less than 1% of the time.

WHILE TOTAL ENERGY USAGE PER RESIDENTIAL CUSTOMER HAS BEEN FALLING, AVERAGE PEAK DEMAND HAS CONTINUED TO RISE.

3.2 (a) REDUCED LONG TERM INVESTMENT IN PEAK DEMAND

Our network must be built to meet peak demand, even if this level of network capacity is required only rarely and for a very short period. But current tariffs do not signal the costs to consumers of using the network at peak times.

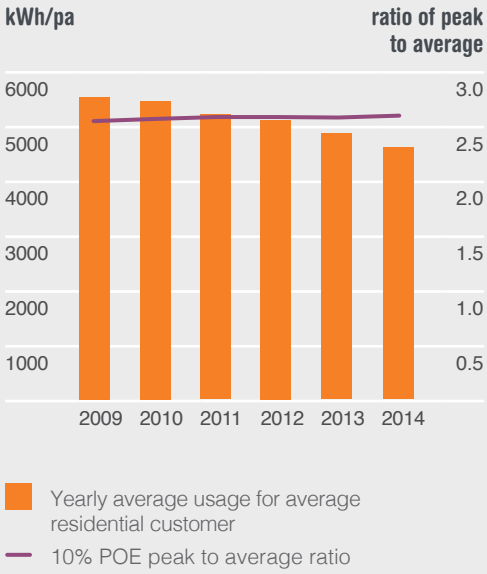
Based on the current tariff structures, customers have an incentive to reduce total usage, but not peak demand. Put simply, we currently charge on usage while building for peak demand. This misalignment drives increases in network augmentation and higher network prices as the additional costs are spread over lower usage volumes.

We cannot know for certain whether introducing more cost-reflective network tariffs would reduce the system peak demand. It may be the case that some customers are prepared to pay the extra costs associated with building the network to supply energy at these peak times.

Without more cost-reflective network tariffs, however, customers will not have the ability to exercise this choice or compare the costs of grid supplied energy at these times with other solutions for peak demand management.

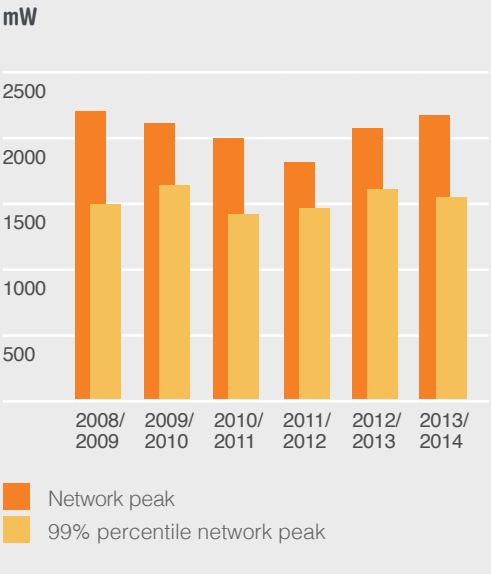
The advances in technology have the potential to make the existing problems more severe if more cost-reflective tariffs are not introduced.

AVERAGE DEMAND AND PEAK TO AVERAGE NETWORK RATIO



***Above:** The average residential customers ratio of usage to peak demand is reducing.*

PEAK NETWORK USAGE



***Above:** 25% of our networks capacity is required to supply energy for less than 1% of the time.*

TARIFFS BASED ON USAGE ALONE CREATE CROSS-SUBSIDIES BETWEEN CUSTOMERS WITH DIFFERENT LOAD PROFILES.

3.2 (b) REDUCED CROSS-SUBSIDIES BETWEEN CUSTOMERS

Customers with flat usage profiles provide a direct cross-subsidy to those with more 'peaky' loads.

Not only is this inequitable, it is also inefficient because the current tariffs provide no incentive for customers to switch discretionary usage to lower cost periods. The Productivity Commission commented on this issue in the following terms[4]:

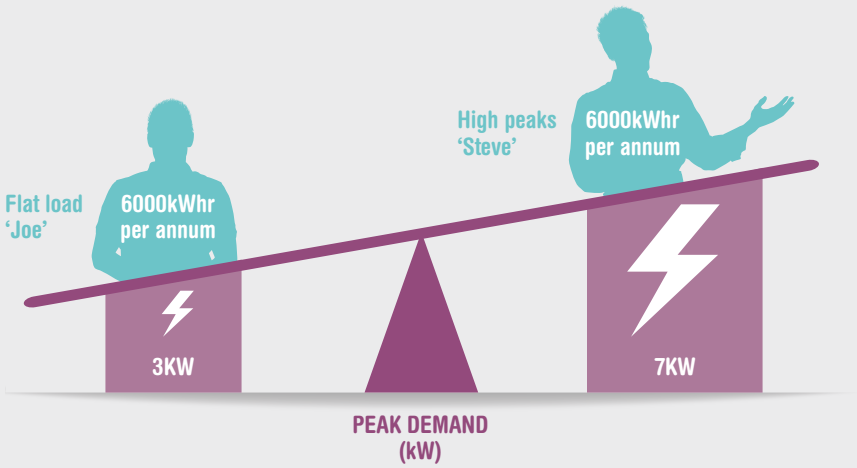
> *Flat network tariffs effectively hide the costs of supplying additional peak capacity to meet the increased use of air conditioning, and therefore provide consumers no financial incentive to change their consumption behaviour. The upshot is that people who own air conditioners (and use the appliance intensively at peak times) are subsidised by those that do not.*

Historically there was much less variation between the usage profiles of different customer groups. Today the increasing penetration of distributed generation and the significant number of customers with very different air conditioning and other appliance loads drives substantial differences between customers in terms of their peak and average usage patterns.

The Productivity Commission estimated that the cross-subsidy is approximately $350 per annum. If tariffs were cost-reflective, not only would this address the existing cross-subsidy, but it would also provide an incentive for customers to reduce peak demand. The potential savings are estimated to be somewhere in the range of $270 to $380 per kW per year, which includes savings for transmission and distribution networks that are passed on to customers, as well as generation capacity[5].

The introduction of cost-reflective, time varying network charges would address this issue, and produce a fairer and more efficient outcome.

Right: *Energy users Flat load 'Joe' and High peaks 'Steve' consume the same amount of energy annually. Steve uses more energy at peak times, and has a higher peak demand than Joe, therefore a higher cost to the electricity network than Joe. With usage based charges Joe and Steve pay the same annual charge for electricity and Joe is actually subsidising Steve's high level of peak demand on the network.*



4. *Productivity Commission, Electricity Network Regulatory Frameworks, Inquiry Report, Volume 2, 9 April 2013, page 352.*
5. *Productivity Commission, Electricity Network Regulatory Frameworks, Inquiry Report, Volume 2, 9 April 2013,, page 371.*

New technologies

NEW TECHNOLOGIES HAVE THE POTENTIAL TO SIGNIFICANTLY TRANSFORM THE WAY THAT CUSTOMERS USE AND INTERACT WITH ENERGY.

3.3 TARIFF REFORM AND TECHNOLOGY DEVELOPMENT

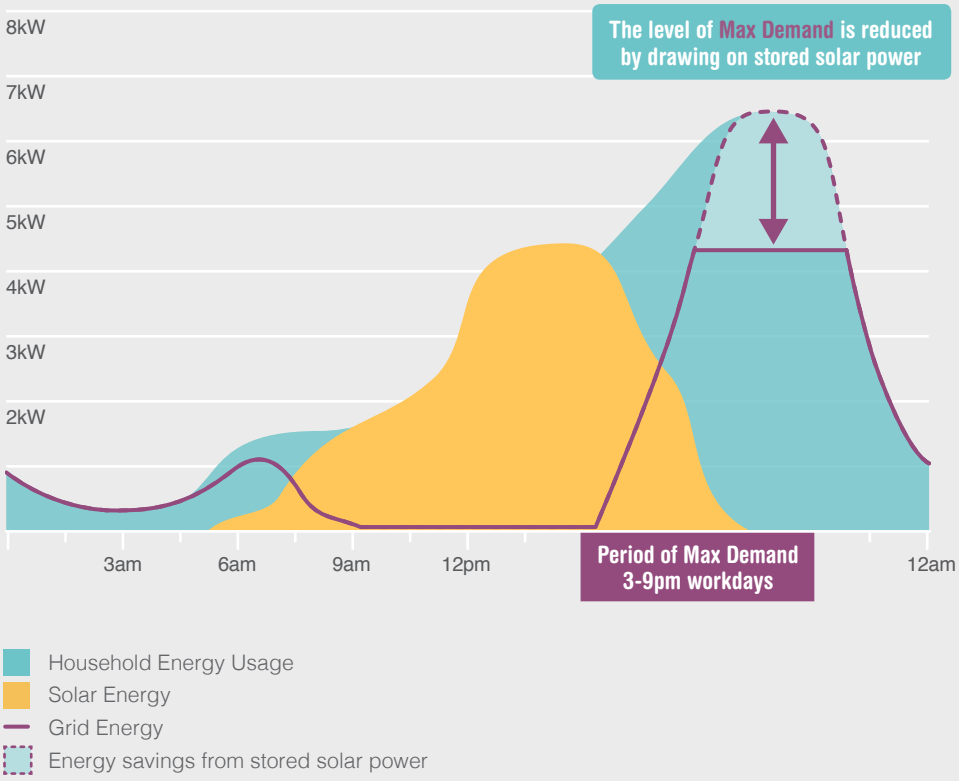
Our objective for tariff reform is not to penalise customers for the efficient investment decisions that they made under historic tariff structures, but to ensure that signals (based on LRMC) are in place for the next wave of technology development or investment.

It's critically important that efficient network signals are in place prior to the widespread roll-out of new technologies.

Storage Deployment

Today, the tariff structures do not encourage customers to use stored electricity at times of system peak demand. Instead, the incentive is more focused on reducing energy usage.

PATTERNS OF DEMAND



***Right:** With a sufficient price signal, battery technology will be used in combination with solar generation to minimise demand during the peak period.*

TODAY'S TARIFF STRUCTURES DON'T ENCOURAGE CUSTOMERS TO USE STORED ELECTRICITY AT TIMES OF SYSTEM PEAK DEMAND.

As a result it is rational for a customer who has invested in battery technology to start consuming from the battery as soon as the household usage exceeds the production from the solar panels, to ensure that they use all of the energy produced each day. This is most likely to lead to only very minor, if any, reductions in peak demand as the battery is likely to be exhausted before the system peak.

Alternatively, if a customer faced signals that reflected the network costs of meeting peak demand, the customer's energy management systems should operate with the objective of minimising demand during the peak period to reduce cost. This would still allow the customer the ability to draw down all the energy stored in the battery, but it would properly signal the value of stored capacity at different times.

It would have the added advantage of providing additional benefits, in the form of lower tariffs, for the customer contemplating a storage investment.

If a customer faced signals that reflected the network costs of meeting peak demand, the customer's energy management systems should operate with the objective of minimising demand during the peak period to reduce cost.

Demand Management Systems

Demand management systems have the potential to provide significant value to customers in reducing the cost of energy. There is limited incentive for customers to invest in these systems under current tariff structures.

Solar Panel Alignment

Non time varying usage tariffs incentivise customers to install solar panels that are north facing to maximise the total solar generation, with much of this generation exported to the grid during the middle of the day when the customers demand is low.

Solar panels orientated to the north have very little impact on the peak summer demand as the generation from the panels is negligible at the time of peak demand in the evening. Changes in the network tariff structures may incentives some customers to install some west facing solar panels that are likely to have higher production levels at peak usage times.

COST-REFLECTIVE PRICING AND THE RESULTING SAVINGS IN AUGMENTATION COSTS WOULD BENEFIT ALL CUSTOMERS.

Electric Vehicles

Current tariff structures provide no incentive to charge an electric vehicle (EV) at different times of the day or night. As a result, it is quite probable that many customers would simply plug their EV in when they came home from work each day[6]. This additional demand would coincide with the system peak, which would drive significant network augmentation requirements in the event of significant EV uptake.

The recovery of the additional investment required in the network would be borne by all customers, including those who are not contributing to the increase in the peak.

Alternatively, if customers were provided with price signals that encouraged EVs to be recharged during off-peak periods, the pressure on the system peak would be reduced, as would the need for new capacity to be built. Cost-reflective pricing and the resulting savings in augmentation costs would benefit all customers.

6. *Customers within focus groups were able to grasp the example provided around EV's and indicated that their natural instinct would be to charge the vehicle as soon as they arrived home, increasing peak demand.*

Introducing demand tariffs

IN JULY 2105, WE INTRODUCED A NEW OPTIONAL, SEASONAL DEMAND DISTRIBUTION TARIFF.

3.4 RECENT DEVELOPMENTS

As an initial step towards more cost-reflective tariffs, we began offering a new Seasonal Demand Time of Use distribution tariff from 1 July 2015 on an opt-in basis.

The tariff consists of three elements:

- A peak demand charge
- An anytime usage charge
- A fixed charge.

In the course of developing this tariff, we engaged with stakeholders in order to explain and seek feedback on our proposals. During our discussions, stakeholders expressed particular interest in understanding the impact on customers of this new tariff. In summary, our analysis of customer impacts shows that[7]:

- 58% of customers would be automatically better off on the new residential demand tariff.
- Customers with a flatter demand profile tend to obtain the highest benefit from the new tariff.

The introduction of this new tariff is an important step in the journey of network tariff reform. It has allowed retailers, customers and stakeholders real hands-on experience with a type of tariff that is representative of the tariffs we propose to introduce in the future, and has allowed all stakeholders to model and assess customer impacts.

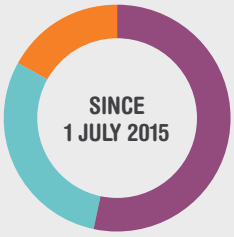
The demand tariff introduced in 2015 allowed retailers, customers and stakeholders real hands on experience with the tariff structures of the future.

Moving towards cost-reflective network pricing will lead to the unwinding of existing cross-subsidies, benefitting a majority of cudtomers while impacting others. In order to successfully manage tariff reform it is important to manage customer impacts through the period.

We have consulted extensively with customers, retailers and other stakeholders to determine the most appropriate changes to our current tariffs from 2017 and the implementation timeframes.

This consultation process provides us with confidence that we have got the balance right between improved cost reflectivity and managing customer impacts.

STRUCTURE OF NEW DEMAND BASED RESIDENTIAL DISTRIBUTION TARIFF*



Maximum Demand - Maximum monthly demand in peak demand window each month.
- Different rates for winter and summer.
- Minimum demand charge.

Anytime Usage - Single rate for energy consumed at any time.

Fixed Charge - Specified fixed costs, such as:
- Metering
- TFiT / PFiT
- Other/pass throughs

* *Cost structure includes DUOS, TUOS, Metering and pass throughs.*

7. *As set out in our 2015 pricing proposal this tariff was discounted to LVSR1 by 10% to provide an incentive for the uptake of the tariff by retailers and customers.*

Tariff reform delivers real customer benefits from the smart meter investment in Victoria.

Making the transition

IN VICTORIA WE ARE WELL PLACED TO IMPLEMENT TARIFFS THAT INCENTIVISE AND REWARD INNOVATION, AND REDUCE LONG TERM ENERGY COSTS.

3.5 TIMEFRAMES AND PROCESS

We have explained that tariff reform will facilitate:

- Efficient investment in future network augmentations.
- Fairer and more efficient costs being borne by different customer groups.
- Efficient incentives for new technology to deliver genuinely lower cost energy solutions.

Tariff reform builds on the substantial investment in smart meters already undertaken in Victoria. We are therefore well placed to implement tariffs that incentivise and reward innovation, and reduce long term energy costs.

Cost-reflective tariffs will also create opportunities for innovation in energy management systems that optimise the use of energy, helping customers to save money. These systems would leverage off the investment in smart meters, as well as future technological advances in appliances such as air conditioners.

The effectiveness of new tariffs needs to be assessed over time, and we need to be ready to modify our approach if this proves necessary. Our approach is therefore an evolutionary one, rather than revolutionary.

We are at a crossroads. The path of tariff reform will promote and encourage more efficient, innovative energy solutions.

The other path will maintain the status quo, with increasing cross-subsidies between customers; increasing peak demand; and on-going and potentially increasing traditional network augmentation. Our network tariff reform goals seek to place us on the path to more efficient, innovative energy solutions.

In terms of implementing change, however, we must have regard to the implications for customers and retailers. Our current tariffs, while not ideal, contain features that our customers understand. We are not starting with a blank sheet of paper in designing the perfect tariff.

Many customers simply don't have the time or interest to understand the complexity of energy pricing. We must ensure that the extent of change and the timeframes are manageable. In addition, the effectiveness of new tariffs needs to be assessed over time, and we need to be ready to modify our approach if this proves necessary. Our approach is therefore an evolutionary one, rather than revolutionary.

We must ensure that our tariffs comply with the National Electricity Rules and meet our objectives to realise the potential benefits associated with technological change and more efficient network usage.

Guiding objectives

WE HAVE ESTABLISHED STRATEGIC OBJECTIVES TO GUIDE OUR TARIFF REFORM PROJECT.

4.1 OBJECTIVES

Our objectives have been developed through the consultation process with customers and retailers, which we discuss in Section 5.1 and the overview paper that accompanies this document.

The objectives describe the characteristics that our network tariffs should exhibit in order to:

- Give practical effect to the network pricing objective and the pricing principles set out in the Rules, which we describe in Section 4.2
- To realise the potential benefits associated with technological change and more efficient network usage, as discussed in the previous section.

These objectives have provided a practical way for stakeholders to engage directly in the design of our new tariffs and provided a useful framework for testing our tariffs against the Rules principles.

GUIDING OBJECTIVES FOR TARIFF REFORM

Simple	Ability for customers to react and understand.
Attractive	Desire of retailer to pass the tariff through to customers[8].
Forward Looking	Ability to deal with changing market conditions while being technology and policy agnostic.
Manageable Volatility	Desire for low year-on-year volatility.
Predictable	Ability for customers to forecast and understand impacts. No bill shock.
Cost-reflective	Reduce inefficient and unintended cross-subsidies and adapt to different types of customers' load profiles and technologies.
Compliant	Compliance with the National Electricity Rules.
Timely	Transition mitigates potential risks associated with changing use of network under current inefficient tariffs.

8. *While our preference is for our tariffs to be passed through to customers by the retailer we recognise that exposure of retailers to an input price signal should lead to competition and actions to manage the associated cost risk.*

Compliance

WE MUST ENSURE THAT OUR TARIFFS COMPLY WITH THE NATIONAL ELECTRICITY RULES.

4.2 RULES REQUIREMENTS

This section provides an overview of these national electricity rule requirements.

Following an extensive consultation exercise, the Australian Energy Market Commission (AEMC) established the following objective:

> *The network pricing objective is that the tariffs that a Distribution Network Service Provider charges in respect of its' provision of direct control services to a retail customer should reflect the Distribution Network Service Provider's efficient costs of providing those services to the retail customer.*

In addition to establishing the pricing objective, the AEMC developed four new pricing principles. The Rules require each distributor to satisfy these pricing principles in a manner that will contribute to the achievement of the network pricing objective.

The principles are explained below[9]:

- Each network tariff must be based on the long run marginal cost of providing the service. If consumers choose to take actions that will reduce future network costs, such as reducing demand at peak times, then they will be rewarded with lower network charges. Network businesses have flexibility about how they measure long run marginal cost
- 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 price signals that encourage efficient use of the network by customers
- Tariffs are to be developed in line with a new consumer impact principle that requires network businesses to consider the impact on customers of changes in network prices and develop price structures that can be understood by customers. The AEMC noted that customers are more likely to be able to respond to the price signals if they can relate their usage decisions to network price structures and sudden price changes are avoided. Network businesses are allowed to phase-in new price structures gradually
- Network tariffs must comply with any jurisdictional pricing obligations imposed by state or territory governments. If network businesses need to depart from the principles in the Rules in order to meet jurisdictional pricing obligations they must do so transparently and only to the minimum extent necessary.

The AEMC also retained a pre-existing pricing principle, which is designed to avoid cross-subsidies between different classes of customers, for example residential and business customers.

This principle requires the level of network prices for a tariff class to be between an upper and lower bound:

- The lower bound (avoidable cost) is defined by the costs that the network company would save if the particular tariff service were no longer provided
- The upper bound (stand alone cost) is defined by the costs of providing a dedicated network to serve that particular tariff

Appendix 8 provides details of how we comply with the pricing principles so as to contribute to the pricing objective.

9. *AEMC, Distribution Network Pricing Arrangements, Information Sheet, 27 November 2014, page 1*

What is long run marginal cost?

LONG RUN MARGINAL COSTS ARE COSTS THAT CAN BE INFLUENCED BY THE DECISIONS CUSTOMERS MAKE TODAY ABOUT THEIR USE OF THE NETWORK.

The Rules recognise that if tariffs are set to recover only the long run marginal cost of services, then they are unlikely to generate sufficient revenue to recover the total efficient cost of the network.

The Rules therefore require each network tariff to recover the distributor's total efficient costs in a way that minimises distortions to price signals that encourage efficient use of the network by customers.

This provision recognises the dual role played by network tariffs, in terms of:

- Signalling future costs, thereby encouraging customers to make efficient usage and investment decisions
- Enabling distributors to recover the total efficient cost of the network, thereby providing the right incentives for network owners to continue to fund on-going investment.

Consultation

WE HAVE ADOPTED A CONSULTATIVE APPROACH TO TARIFF REFORM.

4.3 OUR APPROACH

Our approach has a particular emphasis on balancing the economic principles specified in the Rules with the practical objective of delivering tariffs that are acceptable to our stakeholders, of whom many have different objectives and interests.

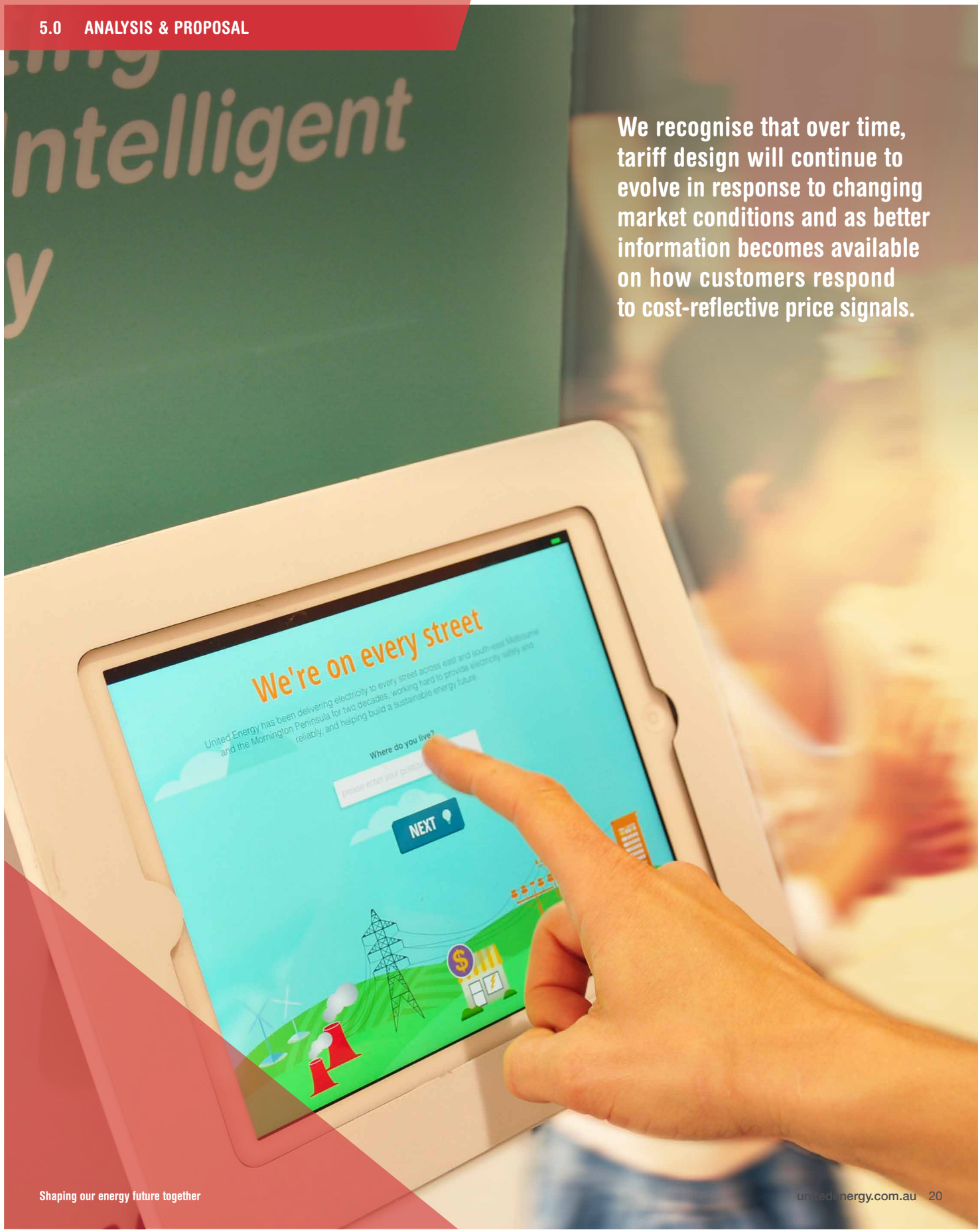
In this regard, our approach is strongly aligned with the following observations from the Productivity Commission[10]:

> *The Commission has not sought to specify how peak demand should be defined within a time-based pricing regime. Rather, distributors should determine this, in consultation with the other relevant stakeholders as part of the implementation process. However, the Commission reiterates that peak period charges that drive augmentation investment should be much more targeted to actual demand peaks than at present. Some other key considerations for any definitions include:*
>
> - *the capacity to translate definitions into simple and understandable time-based tariff structures that facilitate the desired demand management approach*
> - *the need to consider the costs and confusion that inevitably accompany changes in definitions.*
>
> *The implication of the latter is that there should be a trade off between, on the one hand, the benefits of continually finessing tariffs and, on the other, the transactions costs for retailers and consumers associated with constant change and complexity. This suggests some gradualism in adapting tariffs over time. It also indicates the importance of engagement between network businesses, retailers, customer representatives and the AER on the means of iterating to a robust time-based charging regime.*

These observations highlight the importance of establishing a clear direction and transitional path for tariff reform, with input from stakeholders.

In developing our preferred approach and transitional path we considered a number of options and consulted widely with stakeholders.

10. *Productivity Commission, Electricity Network Regulatory Frameworks, Inquiry Report, Volume 2, 9 April 2013, page 442.*



We recognise that over time, tariff design will continue to evolve in response to changing market conditions and as better information becomes available on how customers respond to cost-reflective price signals.

Stakeholder feedback

WE HAVE CONSULTED WITH STAKEHOLDER GROUPS AND CONSIDERED THEIR FEEDBACK IN OUR PROPOSAL APPROACH.

5.1 STAKEHOLDER CONSULTATION

We have prepared a separate overview paper detailing our stakeholder engagement initiatives and outcomes.

This paper explains how we have engaged with customers and retailers in developing our proposed tariff structure statement, and how we have sought to address any concerns raised.

In the course of developing our tariff reform strategy, we have consulted with a range of stakeholder groups through workshops, public forums, focus groups and one-to-one meetings.

KEY STAKEHOLDER CONSULTATION GROUPS

Our stakeholder engagement process has addressed the following topics:

- The case for tariff reform
- Our tariff reform objectives
- Our proposed tariff strategy
- Different tariff options and structures
- Transition arrangements
- The scope and purpose of the Tariff Structure Statement
- Specification and pricing of a new optional residential demand-based time of use tariff, which we have recently introduced as a first step in tariff reform
- Customer impact analysis
- The evolving benefits of cost-reflective network tariffs.

KEY RETAILER AND STAKEHOLDER OBJECTIVES

Retailer Forum	- Supports United Energy's tariff reform objectives - Supports simplification of network tariffs - Emphasised the value of a common methodology across network businesses - Prefer assignment of all customers to cost-reflective tariff.
Customer Consultative Committee	- Supports United Energy's tariff reform objectives - Prefers an 'opt out' arrangement, rather than 'opt in' arrangement for transition - Emphasised the importance of on-going consultation and customer information sessions.
Victorian Government	- Expect strong analysis of the customer impacts and consideration of the impact on tariff reform on vulnerable customer groups - Prefer alignment of all Victorian network businesses structure and time periods to aid communication of the changes.
Large Customers	- Support tariff stability in already cost-reflective network tariffs - Highlighted efforts made to adapt actions to optimise under existing cost-reflective tariff structures.
Small Customers	- Understand the drivers for tariff reform and the benefits it can deliver to all customers - Understand the concept of maximum demand - Understand the ways they can change behaviour if they want to save money under tariffs with a demand element.

We have addressed all the major concerns raised in our consultation through the proposed tariff design.

We currently have cost-reflective tariffs for larger commercial and industrial customers. Our customers tell us these are working well and we have no plans to changes the structures of these tariffs TSS.

In fact doing so has the potential to undermine the significant contribution that these tariffs, and the customers on them, have made to managing demand on the network.

Details of the proposed tariffs for large customers can be found in Section 7. As such the rest of this section is focused on the residential and small commercial sector of the market.

Designing tariffs

THERE ARE A NUMBER OF DIFFERENT WAYS THAT NETWORK COSTS CAN BE CHARGED TO CUSTOMERS.

5.2 TARIFF DESIGN

Before starting to discuss the details of tariff design it is important to appropriately define the tariff components that can be used.

We have worked closely with other network businesses around Australia to ensure that there is common understanding of the terms and consistency in definitions. Consistency in language will support good communication with various stakeholders.

In designing individual tariffs, four tariff components can be weighted, measured and combined in different ways to provide a wide range of possible structures.

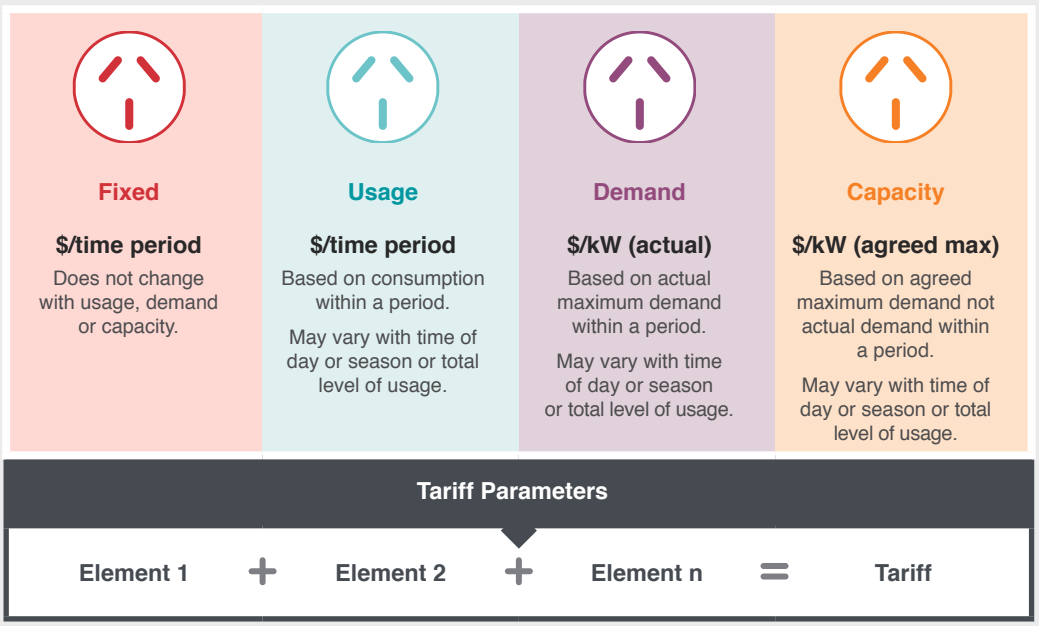
Different parameters applied to the components are used to create various tariff elements which are combined to form a complete tariff.

Our stakeholder engagement focussed initially on assessing and then selecting the preferred components for reflecting the LRMC.

We then focused on selecting the preferred base tariff design incorporating both LRMC and residual costs[11] from a wide range of options. We recognised that over time, tariff design will evolve in response to changing market conditions, and as better information becomes available on how customers respond to cost-reflective price signals.

A key consideration in the design was the level of customer understanding of the existing tariffs and the need to prevent bill shock as we transition to more cost-reflective prices.

Right: *This table lists the tariff components considered in assessing parameters and elements for defining a tariff structure.*



11. *Residual costs are explained in section 5.4.*

Tariff options

WE HAVE WORKED WITH CUSTOMERS TO ASSESS THE MOST COST-REFLECTIVE TARIFF STRUCTURE.

5.3 ASSESSMENT OF COMPONENTS TO EFFICIENTLY REFLECT LRMC

Working with customers, we undertook an assessment of the potential for the four tariff components to signal the LRMC of network investment to customers.

This assessment provided initial guidance to assist in the identification and specification of preferred base tariff options.

Our assessment focused on three considerations, which correspond broadly with the objectives we set out in Section 4.1 and the Rules requirements described in Section 4.2, as explained below:

- ***Economic efficiency*** - encompasses our objectives of "forward looking", "cost-reflective" and "compliant"; and aligns with the network pricing objective set out in clause 6.18.5(a) and the pricing principles set out in clauses 6.18.5(e), (f) and (g) of the Rules
- ***Customer impact*** - encompasses the objectives of "simple", and "predictable"; and aligns with the pricing principles set out in clauses 6.18.5(h) and (i) of the Rules
- ***Retailer impact*** - encompasses the objectives of "simple", "attractive", and "predictable" and aligns with the requirements embodied in clause 6.8.2(c1a) of the Rules.

The table overleaf shows a qualitative rating for each base tariff type.

Performs poorly
Performance is acceptable
Performs well
Performs very strongly

QUALITATIVE RATING FOR TARIFF COMPONENTS

	Economic Efficiency	Customer Impact	Retailer Impact	Overall Ranking
Fixed Charges	- Focused on sunk network cost recovery - Does not reflect marginal costs - Provides limited incentives for efficient customer response - Likely to lead to inefficient investment.	- Smallest customers pay a disproportionate cost share - Significant cross-subsidies between customers - Customer response can't impact the bill - May encourage some customer groups to disconnect from the grid.	- Simple to explain - Simple customer pass through.	
Energy Usage Charges	- Does not reflect the cost drivers of the network - May incentivise behaviours that inefficiently increase network and other costs - Signalling ability can be improved with time of use (TOU) pricing.	- Simple to understand as reduction in usage leads to reduction in total charges - Significant cross-subsidy to customers who use the grid intensively for short periods (eg. air conditioning, electric vehicles).	- This is a continuation of the status quo, so it is simple to explain to customers - Simple pass through on the same basis as wholesale electricity costs - TOU can provide incentives for action at times of high prices.	
Demand Charges	- Reflects marginal cost of network usage - Effective signals for customers regarding network usage.	- Provides appropriate incentives for action - Provides robust incentives for new technology investment - Addresses the current cross-subsidies.	- A new concept for customers - Will require targeted communication.	
Capacity Charges	- Reflects marginal cost of network usage - Customers, particularly residential customers, may be unable to determine their capacity needs and respond to the price signal.	- Suitable for large customers who have well known and stable capacity needs - Problematic application of capacity charges to small customers, given uncertainties around individual customer's capacity needs.	- Likely to be very difficult to explain to customers - Does not align with wholesale market or other costs.	

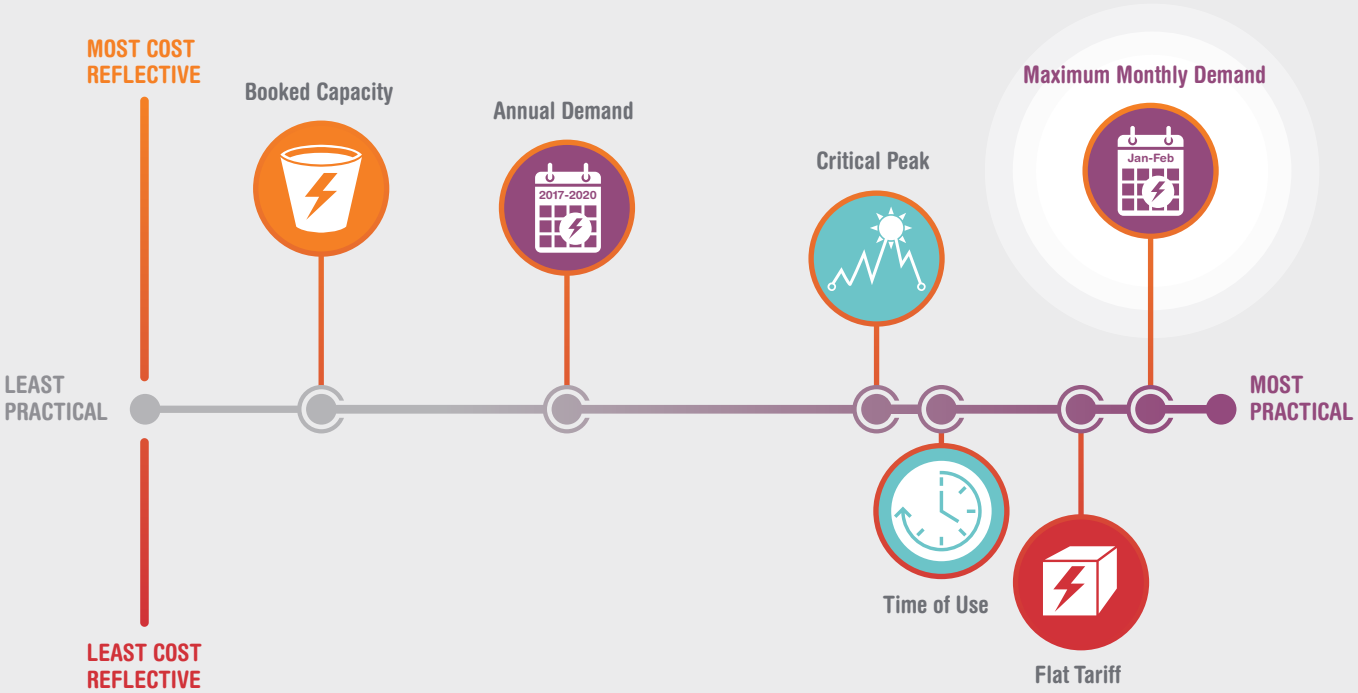
WE HAVE DETERMINED THAT DEMAND CHARGES ARE LIKELY TO BEST SATISFY OUR OBJECTIVES.

Working with stakeholders in completing the initial assessment set out above, we determined that demand charges are likely to best satisfy the objectives we set out in section 4.1, and the requirements of the Rules in signalling LRMC to customers.

Extending the above analysis further, we assessed the trade-off between the two critical requirements that tariffs should be:

- ***Cost-reflective*** - The tariff must promote economically efficient outcomes, and so it must be cost-reflective
- ***Practical*** - Customers must be able to understand the price signals provided by the tariff, and to respond to those signals without the risk of significant price shock.

The diagram below sets out an assessment of this trade-off for a representative sample of 6 common tariff elements from across the broad spectrum of possible structures. These illustrative tariff elements are described on the next page[12].



12. *These definitions are based on material contained in the CUAC Research Report titled "Cost-reflective Pricing - Engaging with Network Tariff Reform in Victoria", June 2015.*

COMMON TARIFF STRUCTURES

Any Time Usage

While anytime usage tariffs are easy for customers to understand they do not in anyway reflect the future costs (or historic) costs of building, maintaining and running the network as discussed above.

Time Of Use (TOU)

We currently have a range of TOU tariffs in place, which provide incentives to customers to reduce their usage on each individual day during the periods of the day when loading on the network is high. Customers who respond to these signals by reducing their usage during those periods are rewarded with lower overall charges, so they do have some cost-reflective properties. As a usage based charge, however, energy TOU tariffs are less cost-reflective than demand-based charges.

For instance, during a heatwave that extends over a number of days, domestic customers on an energy TOU tariff may “accumulate” savings in network charges over, say, the first two days of the heatwave by not running their air conditioners. However, on the third day, they may “spend” those savings by running air conditioners at high output levels, thus increasing their demand on that day. This would lead to the occurrence of a high aggregate peak demand on that day, and may simply result in a shift in the peak from one day to another. Under some circumstances, the responses of customers to daily energy TOU signals may lead to a more peaky system demand profile.

Critical Peak

We consider that critical peak tariffs have potential to provide targeted cost-reflective signals to address particular hotspots in the network; however their blanket application is likely to be unduly punitive where customers have limited ability to influence their demand.

In addition, these forms of tariffs are generally more difficult to administer and create a set of embedded options for the network – for instance, given the need to identify the critical pricing period(s) and to notify customers in advance. Critical peak tariffs may also create significant year on year volatility in customer pricing in the event of a very hot or cold summer leading to revenue under or over recovery. Similarly to TOU tariffs behaviour under critical peak tariffs is not necessarily repeatable or predictable and has the potential to lead to more ‘needle’ peaks. Where there are specific localised network constraints we prefer the incentive approach for customers who opt in as set out in Section 5.8.

COMMON TARIFF STRUCTURES (CONTINUED)

Capacity

While capacity charges may be highly cost-reflective they would be very difficult to implement in the current environment for small customers. Given the current level of customer tariff understanding and customer technology usage it would be very difficult and costly to set the capacity level appropriate for each customer. Mechanisms would also be required to periodically review and reset capacity limits for customers. Capacity tariffs will also be harder for customers to influence and may be viewed as a proxy fixed charge.

Annual Demand

Our assessments show that demand is the most efficient component to reflect the LRMC of future investment in the network. While we do make investments in network capacity for the long term, the use of an annual demand charge provides limited incentives for customers to change their behaviour as they will likely need to wait up to a year to see any reduction in their bills. There is also the potential for a single action, not necessarily coincident with the network peak to set a customer's bill for an entire year under an annual demand charge. While annual demand charges are appropriate for larger customers where the customer is the prime driver of the sizing of infrastructure, it is not appropriate for smaller customers where load diversity plays an important role in managing peak infrastructure demand.

Maximum Monthly Demand

Based on our assessments, we identified demand tariffs as our preferred tariff structure for the signalling and recovery of our long run marginal costs. A monthly demand charge provides an appropriate balance between the long term nature of investment that should be signalled and the need for clear and quick pricing feedback loops to customers. Under monthly demand charges, customers are not penalised on an ongoing basis for one off activities such as hosting a large gathering but only pay the demand charge for that month at the higher rate. The monthly demand charge also prevents the 'banking of savings' as described under TOU charges that has the potential to result in higher peak demand.

We are proposing the use of a monthly demand charge based on the customers demand in the highest 30 minute period in the peak demand charging window.

THE RULES REQUIRE US TO SET NETWORK TARIFFS SO AS TO RECOVER OUR TOTAL EFFICIENT COSTS.

5.4 RECOVERY OF RESIDUAL COSTS

Every five years the AER determines the revenue allowance that allows us to recover the total efficient cost of providing regulated distribution services.

A significant part of our total efficient cost relates to assets that have already been installed. The costs of those assets are sunk – or fixed – in the sense that network usage decisions made by customers today cannot affect those costs.

As explained in Section 4.2, tariffs have two purposes, which are:

1. To signal future LRMC costs, so as to encourage customers to make efficient usage and investment decisions; and also
2. To enable network businesses to recover the total efficient cost of the network, so that the providers of capital to these businesses have on-going incentives to continue to fund network investment.

A significant part of our total efficient cost relates to assets that have already been installed.

The Rules recognise that if tariffs are set to recover only the LRMC – or future costs – of services, then they are unlikely to generate sufficient revenue to recover the total efficient cost of the network. The shortfall, or difference between total efficient costs and LRMC is termed the 'residual'.

The Rules require us to set network tariffs so as to recover our total efficient costs (that is the LRMC plus the residual) in a way that minimises distortions to price signals that encourage efficient use of the network by customers.

There are a number of different ways in which residual costs can be recovered, including:

- ***Fixed charges*** - These charges lead to low distortion of price signals, but they also have the potential to lead to inequitable outcomes. For this reason they are not acceptable to customer groups, and they are not proposed by United Energy
- ***Demand charges*** - Residual costs could be recovered through an off peak demand element. This would be equitable, as it is based on the share of the network a customer uses. It is also likely to impose minimal distortion on efficient usage decisions
- ***Usage charges*** - An energy charge by its nature does create distortions to usage decisions, but this is the mechanism that is clearly understood by customers today and deviating from this would create additional challenges in the transition. A flat Anytime Usage is least distortionary when combined with a time of use demand element for LRMC.

Customisation

ONE OVERARCHING GOAL OF TARIFF REFORM IS TO PROVIDE CUSTOMERS WITH IMPROVED CHOICE.

5.5 UNITED ENERGY'S TARIFF PROPOSAL

To deliver this outcome, we propose to supplement the existing tariffs with additional "pick and mix" services.

Under this model – which we call a "Simple Service Framework" – tariffs can be customised to provide service offerings that are tailored to meet each individual customer's particular needs and preferences.

'PICK AND MIX' SERVICES

Network Services	+	Optional Tariffs	+	Other Charges	=	Customers Charges
New Customers • Demand Tariff **Existing Customers** • Transitional Demand Tariffs **Optional Tariffs** • Peak and Off-peak demand • Capacity • Single rate usage (opt out)		**Locational Offerings** • Critical Peak Rebates • Load Control • Network Support		• Metering • Pass-Throughs (eg. TFiT/ PFiT)		

Transition approach

CURRENT NETWORK TARIFFS FOR SMALL COMMERCIAL AND RESIDENTIAL CUSTOMERS COMPRISE FIXED AND USAGE-BASED CHARGES.

5.6 NEW TRANSITIONAL DEMAND TARIFFS FOR EXISTING SMALL AND MEDIUM CUSTOMERS

From 2017, we propose to lower the fixed and usage charges and to introduce a new charge based on the customer's maximum demand to all existing tariffs.

The maximum demand will be measured in any 30 minute block within the following periods:

- ***For residential customers*** - the demand charge will apply to maximum demand recorded between 3pm and 9pm on a workday
- ***For small to medium commercial and industrial customers*** - the demand charge will apply between 10am and 6pm on a workday.

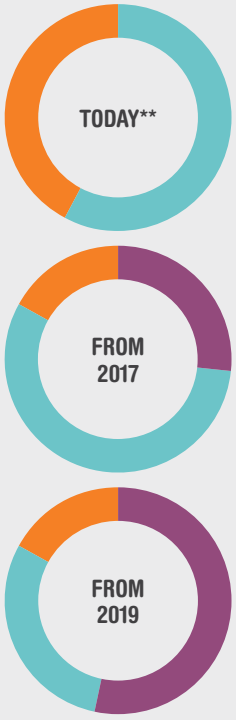
These charging periods have been chosen to coincide with the periods of peak demand imposed on the network be these different customer groups.

Further detailed information is provided in Appendix 2. As already explained, the need for new investment in the network – and hence network costs – are driven by peak demand. Our proposed demand charges will signal to customers the long run marginal cost of using the network during those peak periods. These signals will enable customers to make informed and efficient choices about their use of the network, having regard to the costs that their use imposes on the network.

Different rates will apply for summer and non summer periods. This reflects the fact that the driver for most network investment is the peak summer period but that customers need consistent signals throughout the year to minimise the potential for bill shock throughout the transition and provide appropriate signals for both behaviour change and algorithm setting in demand management systems.

We are proposing a minimum demand charge of 1.5kW each month for residential, small to medium commercial and industrial customers. This charge reflects the fact that the network is designed to cater for a minimum demand per connection over the entire year.

TRANSITION TO DEMAND BASED TARIFFS FOR OUR RESIDENTIAL CUSTOMERS*



- **Maximum Demand** - Maximum monthly demand in peak demand window each month
  - Different rates for winter and summer
  - Minimum demand charge.
- **Anytime Usage** - Single rate for energy consumed at any time.
- **Fixed Charge** - Specified fixed costs, such as:
  - Metering
  - TFiT / PFiT
  - Other/pass throughs.

** Cost structure includes DUOS, TUOS, Metering and pass throughs.*

*** Fixed charges today include a standing charge.*

Customers with a flatter demand profile benefit from the new tariff structure.

RESIDUAL COSTS WILL CONTINUE TO BE RECOVERED THROUGH USAGE-BASED CHARGES.

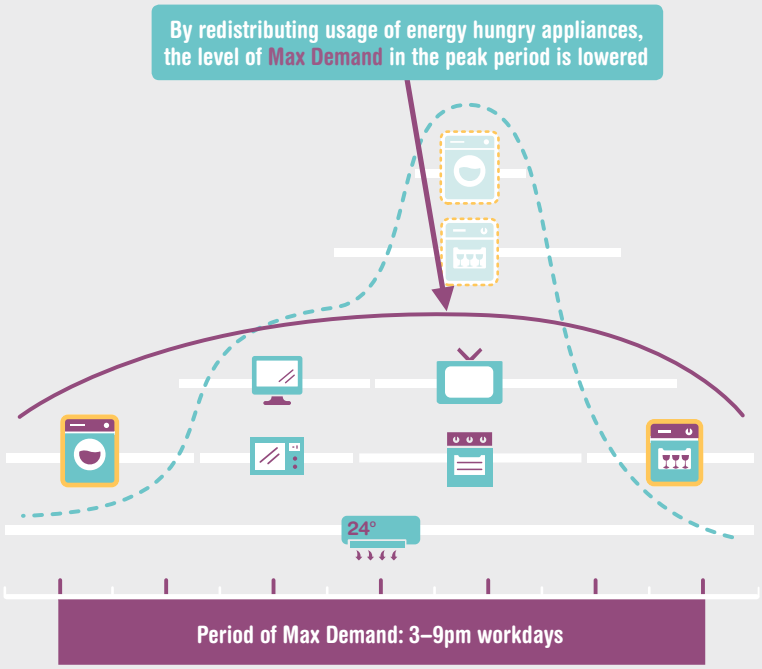
Our large customers already pay cost-reflective tariffs, so they will not be affected by these proposals.

It should be noted that under our tariff proposals, residual costs[13] will continue to be recovered through a combination of fixed charges and usage-based charges. This is a clear reflection of the current structure of tariffs and the need to ensure that customer impacts of the transition are minimised.

We have undertaken significant customer impact analysis of the transition to cost-reflective network tariffs across our network. Further details on the customer impacts can be found in Section 6 and Appendix 4.

We set out in Appendix 1-3 our approach to:

- Setting the maximum demand charging window
- Allocation of LRMC to the monthly demand charge.



Right: *Residential customers who are willing and/or able to 'spread' their usage of energy hungry appliances out to achieve a flatter demand profile, will benefit from the demand tariff.*

13. *As explained in section 5.4, residual costs are the difference between the long run marginal cost and the total efficient cost of the network..*

Evolution

THIS FIRST TSS IS A CRITICAL STEP IN THE EVOLUTION OF NETWORK TARIFFS.

5.7 OTHER NEW TARIFFS

While we have a preference for minimising and simplifying the number of tariffs available, this needs to be balanced with the ability to manage customer impacts and trial new tariffs that may be important for customers in the future.

We set out below the other tariffs that we propose to make available during the period to which this TSS relates.

Demand

As part of its 2015 annual pricing proposal, we introduced a demand tariff that reflects the LRMC of future network investment. Many customers and stakeholders have expressed a view that they would like cost-reflective tariffs to be introduced as soon as possible. The demand tariff allows willing and engaged customers to opt into a tariff with a higher demand component than the transitional demand tariff. We expect by the end of the regulatory control period for the transitional demand tariff and the demand tariff to have the same charges parameters.

Capacity

Many stakeholders have expressed interest in a 'mobile phone' style capacity tariff. While we do not see this as an appropriate tariff for mass market residential customers at this time, it is important to be able to test future tariff designs and offer innovative tariff solutions to engaged customers and retailers. As a result we plan to introduce a capacity tariff in the period based on a booked capacity basis with either an over run charge or a load limiting option for customers. It is important to note that we don't expect this tariff to be offered by retailers to mass market customers who aren't highly engaged in energy decisions.

Peak / Off Peak Demand

As noted in section 5.4 the use of a usage charge to recover residual costs has the potential to impact on efficient usage decisions. While the inclusion of an energy component in the tariff is important as we move through the transition process, it is possible that in the future, demand charges will play an increasingly prominent role in the recovery of residual costs.

This would require both peak and off peak demand elements. We plan to introduce a peak / off-peak demand tariff within the period to further assess the potential for demand charges to recover residual costs. As with the capacity tariff we do not expect this to be offered by retailers to mass market customers who are not highly engaged.

Single Rate Usage (Opt Out)

As demonstrated by our customer impact analysis, the majority of customers have a small change from under our proposed transition pathway for the introduction of cost-reflective network tariffs. Over the longer term we strongly believe that the transition to cost-reflective network tariffs is in the best interests of consumers.

We also recognise that there may be a small number of customers, who are unable to adapt to the new demand based tariffs. To address this concern, we are proposing to maintain a usage based tariff based on our current seasonal LVS1R tariffs. This tariff will be available to customers who specifically instruct their retailer of their desire to opt out of the transitional demand tariff[14].

14. *We propose reviewing the need to allow customers to opt out of cost-reflective tariffs to this tariff prior to 2019. The outcome of this review will not impact the ability of customers currently on the tariff to access the single rate energy tariff.*

Locational tariffs

WE CONSULTED WIDELY WITH STAKEHOLDERS ON THE OPTION OF LOCATIONAL TARIFFS.

We note that there are currently a small number of customers on our network who do not have smart meters.

We would expect that the Opt Out Energy tariff structure would also apply to these customers. To ensure that this tariff meets the cost-reflectivity principles set out in the Rules, we will assess the profiles of the customers on this tariff as part of the annual pricing proposal process.

5.8 OPTIONAL LOCATIONAL TARIFFS AND REBATES

The idea of applying locational tariffs was rejected by all stakeholders as too complex a solution in the early stages of network tariff reform.

The introduction of locational tariffs also raises complex questions on the efficient allocation of residual costs to customers[15]. As a result we have not proposed any locational differences across the network. There is very limited difference in the LRMC between the North and South zones of our network.

While there may not be major difference in LRMC between the regions, at times there are specific areas of the network with constraints that may be long or short run. To ensure we can provide appropriate signals and support our commitment to demand management, we are proposing to also offer the following tariffs and rebates to customers where these are more efficient than traditonal augmentation.

Each of these tariffs or rebates would only be available in specified geographic areas where network constraint has been identified and will be subject to specific contractual terms and conditions.

Critical Peak Rebates

As discussed in Section 5.3, critical peak tariffs can provide an effective way of signalling costs of using energy at peak times to customers, but they have a high potential for negatively impacting some groups of customers, resulting in bill shock. An alternative to critical peak tariffs is critical peak rebates where customers have the option of reducing usage during specified peak times in return for a payment or rebate.

We have employed critical peak rebates on the network for the last two years and found them to be a very efficient way of dealing with localised constraints.

We also note that in consideration of customer impacts and abiding by the principles of simplicity, cost reflectivity and customer impact, peak demand charges only apply on workdays. We have a unique network with many holiday homes located on the Mornington Peninsula. Many of these properties are only occupied on weekends, and our network can and does experience peak demand at these times. A critical peak rebate is an important tool for managing demand at these times. As such we propose to continue offering critical peak rebates to customers in selected areas.

15. *It would not be equitable to simply allocate future costs on the basis of location LRMC and not consider the allocation of the residual or sunk costs on a similar basis. Failure to do undertake this assessment could lead customers in some areas to pay for all the historic upgrades to the network for all uses but not benefit from the same sharing when it came to their future investment requirements.*

THIS TSS HAS BEEN DEVELOPED BASED ON THE RULES IN EFFECT ON THE DATE OF SUBMISSION AND OUR UNDERSTANDING OF THE CURRENT STATE AND NATIONAL POLICY ENVIRONMENT.

Load Control

Load control is not a new concept. The existing hot water controls are an important form of load control and demand side management tool. Technology exists through the smart meters and alternative technologies to limit loads in some areas. In Queensland, Ergon and Energex have run a very successful trial limiting the output from some customers' air conditioners at times of peak demand. We regard load control tariffs or rebates as an important potential tool for better managing the network.

Network Support

The advent of new technology means that small customers may be able to provide network support services back to the network. While this market and the network support services are in their infancy, we see significant potential value for customers and the network. Network support could include injection of energy back into the grid from customers with storage or generation at peak times and voltage control services amongst others.

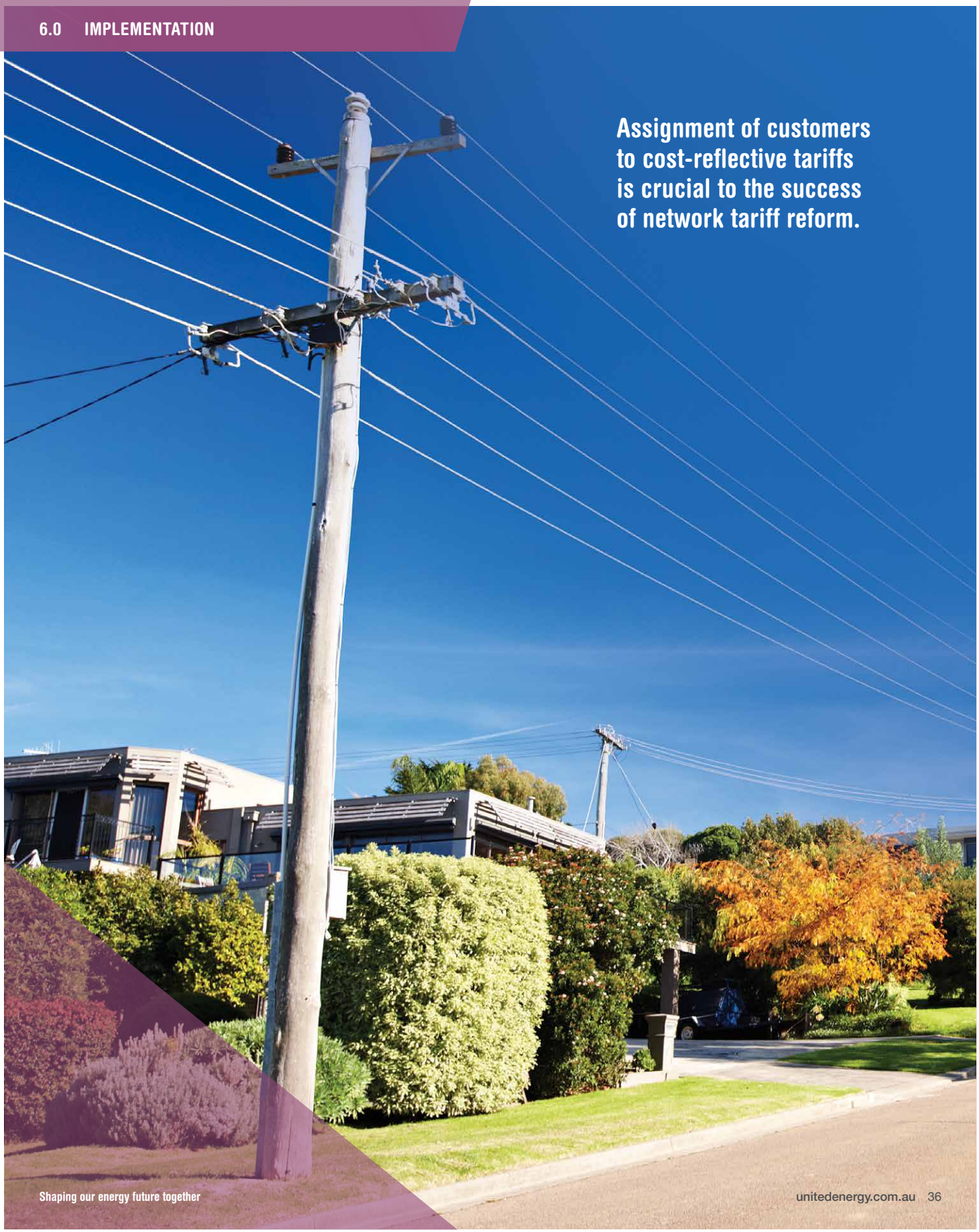
New technology means that small customers may be able to provide network support services back to the network.

5.9 ASSUMPTIONS

This document does not make any assumptions on the potential outcomes of current or potential future Rule change processes or changes in policy.

While we would hope it is not required, should changes be made to the Rules that impact on the tariffs and other information set out in this document, we may need to reopen this TSS in accordance with clause 6.18.1B of the Rules.

The TSS does not include the Alternative Control Service charges that are set out in our EDPR submission.



Assignment of customers to cost-reflective tariffs is crucial to the success of network tariff reform.

Implementation

ASSIGNMENT OF CUSTOMERS TO COST-REFLECTIVE TARIFFS IS CRUCIAL TO THE SUCCESS OF NETWORK TARIFF REFORM.

6.1 PATH FOR TRANSITION TO COST-REFLECTIVE TARIFFS

It is important to recognise that tariff reform could not deliver any benefits unless it changes the distribution of costs between customers.

In view of this consideration, We concur with the Productivity Commission's observation that customers will not volunteer to pay cost-reflective prices if this means higher bills[16]:

> *Network benefits will only be realised if a sufficient number of consumers adapt the pattern and timing of their electricity use, or pay the true cost-reflective price for their usage during peak times. Thus, the scale of demand management is particularly important. Allowing consumers to 'volunteer' to face the true costs of their consumption is likely to lead to a low uptake and a low level of consumption response.*

In line with the Productivity Commission's views, we regard mandatory demand based network pricing as the ultimate objective of tariff reform.

Network benefits will only be realised if a sufficient number of consumers adapt the pattern and timing of their electricity use.

We note that a recent report published by the Consumer Utilities Advocacy Centre (CUAC)[17] expresses a similar view, as follows:

> *Mandating uptake of cost-reflective tariffs is crucial to the success of network tariff reform. If, at the conclusion of the reform, consumers are not required to have a cost-reflective tariff, they will naturally seek to avoid it where it is not in their interests. Consumers whose behaviour would be more expensive under cost-reflective tariffs will avoid them, and the costs they incur will continue to be borne by the broader system. This would be an inequitable outcome that damages the justification for the reform.*
>
> *CUAC suggests using the roll-out of digital television as a template for the introduction of cost-reflective tariffs: 18+ months of communication followed by a mandatory switch-over.*

The CUAC work is consistent with the empirical review of the introduction of cost-reflective network tariffs by the Brattle group that consistently shows that rates of opt out of new tariff structures are significantly higher than the rates of opt-in over both the long and short term[18].

This is consistent with the Victorian experience of the introduction of flexible pricing where we currently have less than 1% of customers on Time of Use pricing.

16. *Productivity Commission, Electricity Network Regulatory Frameworks, Inquiry Report, Volume 2, 9 April 2013, page 358.*
17. *Consumer Utilities Advocacy Centre, Cost-reflective pricing: Engaging with network tariff reform in Victoria, June 2015, page 2.*
18. *The Brattle Group, Smart by Default, 2014.*

WE PROPOSE A PERIOD OF TRANSITION TO FULL COST-REFLECTIVENESS TO MANAGE IMPACTS ON OUR CUSTOMERS.

We have explored a number of ways customers could be assigned to cost-reflective tariffs as part of the consultation for this TSS. These include:

- Assignment of customers to cost-reflective network tariffs at the time of making an investment or change including new connections, move ins and changes in connection types. This would slowly transition individual customers onto new cost-reflective tariff
- Assignment of all customers to tariffs with a demand element, increasing the demand element over time in line with the customer impact principles to achieve cost reflectivity
- Assignment of customer to cost-reflective tariffs based on a defined parameter such as size.

We had initially proposed the assignment of customers to cost-reflective tariffs at the time of new investment. Through our consultation many stakeholders, particularly retailers, were concerned this may create challenges in pricing for different customers and some customer groups were concerned about the potential for added bill shock for customer in new premises.

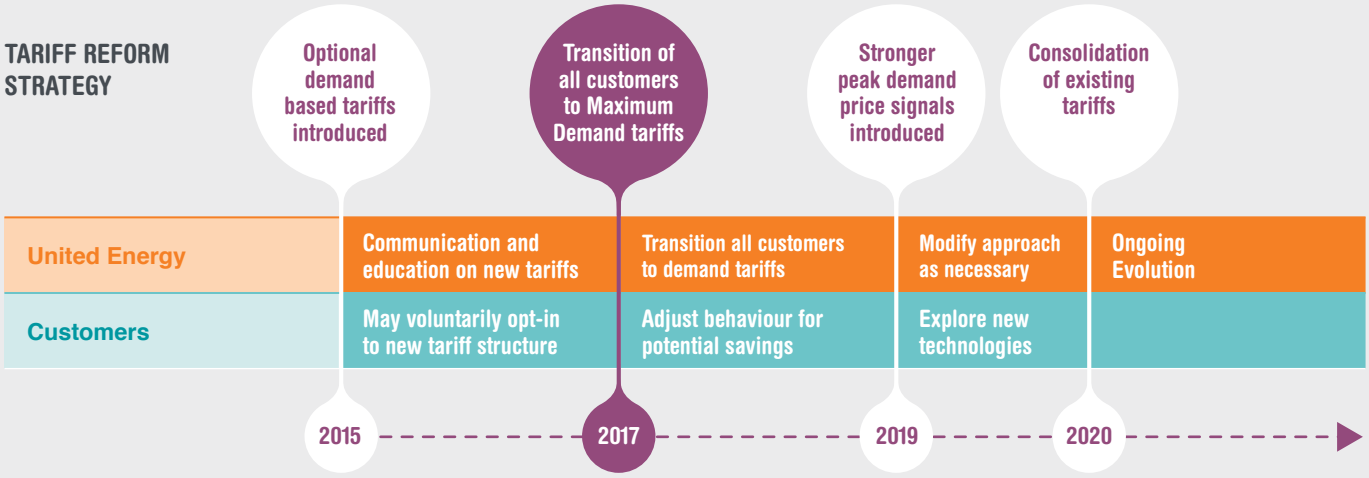
As a result we are proposing the introduction of a demand based element to all customer tariffs that will increase in proportion over time to achieve full cost-reflectivity. The initial demand level will be set to manage the impacts to customers of the transition consistent with our tariff objectives.

Note our customer impact analysis shown in Section 6.3 and Appendix 4 shows that very few customers have a significant positive or negative experience under tariff reform. However, we also recognise that some customers will not share this view and there may be some vulnerable customers for whom relatively small change may have real impacts.

For this reason, we propose that customers are able to opt out of the new tariff structures by providing explicit informed consent to the retailer for the period of this TSS.

If a customer opts out, they will move to a tariff that includes a fixed charge and seasonal usage charge consistent with our current tariffs.

Below: *Our proposed transition to demand-based network tariffs.*



Smooth transition

WE EXPECT TO SEE THE UPTAKE OF OUR EXISTING DEMAND BASED TARIFF BY CUSTOMERS INCREASE OVER THE NEXT FIFTEEN MONTHS.

6.2 TIMING

We currently have a cost-reflective demand tariff available for customers.

While we currently have few customers on this tariff we expect to see the number of customers grow over the next fifteen months as both customers and retailers become more familiar with the tariffs.

While there is no change to the seasonal nature of our tariffs, we are willing to work with stakeholders to ensure a smooth transition.

We propose that existing residential and commercial customers not currently on cost-reflective network tariffs have a demand element added (and other elements reduced) to their existing network tariff from 1 January 2017.

While there is no change to the seasonal nature of our tariffs, as demonstrated in Appendix 4, we are willing to work with stakeholders to ensure a smooth transition. This includes the deferral of the introduction of the demand element by up to three months or the introduction of the new demand element to different groups of customers over a three month period to ensure appropriate systems cut over.

Understanding impacts

IN DESIGNING OUR TRANSITION APPROACH WE HAVE ATTEMPTED TO MINIMISE THE RISK OF PRICE SHOCKS THROUGH THE TRANSITION.

6.3 CUSTOMER IMPACT ANALYSIS

To ensure that we fully understand the impact of a transition to demand tariffs for our customers, we have undertaken extensive customer impact modelling using the historic thirty minute demand profiles of a representative sample of more than 200,000 of our residential customers.

We have used this analysis to ensure that we propose a transition approach that minimises the impact on customers while at the same time providing appropriate signals ahead of the next wave of customer technology investment.

In designing our transition approach we have attempted to minimise the risk of price shocks through the transition. We have undertaken our customer impact analysis on two bases:

- ***Revenue Neutral*** - comparing the existing and future proposed tariff structures on the basis of the same revenue allowance
- ***EDPR tariff level*** - comparing the current 2015 tariffs to the tariffs levels and structures proposed in our EDPR submission taking into account the significant price cut proposed over the period.

KEY FINDINGS OF OUR CUSTOMER IMPACT ANALYSIS:

Revenue Neutral	Customer impacts related to the peakiness of the individual customer load profile.
	No analysed customer groups are systematically or significantly better or worse off under the reformed tariffs including small, large, solar and hot water customers and those in different geographic locations.
	80% of customers impacted less than +/- $30.
	Equal split of customers positively or negatively impacted.
	Minimal change to seasonal revenue recovery.
Including EDPR Price Cut	All customer groups significantly better off.
	97% of customers more than $30 better off.
	99.5% of customers better off.
	Minimal change to seasonal revenue recovery.

Further detailed customer impact analysis can be found in Appendix 4.

Ongoing engagement

WE WILL CONTINUE TO WORK WITH THE COMMUNITY AND STAKEHOLDERS TO INCREASE AWARENESS AND UNDERSTANDING OF NETWORK TARIFFS.

6.4 ALIGNMENT WITH EDPR DRAFT DETERMINATION TIMING

At the time of submitting this TSS, the AER is assessing our Regulatory Proposal for the 2016 to 2020 regulatory control period.

The AER's Preliminary Determination for our Regulatory Proposal will set our annual revenue requirements for this period which will be recovered through our distribution tariffs.

As foreshadowed in our Regulatory Proposal, we propose that the AER approve X-factors such that there is no price change in 2016 and our proposed price reduction apply from 2017 when the new tariff structures under the TSS take effect.

We will set out our proposed X-factors for 2017 onwards in our Revised Regulatory Proposal for the AER's approval in its Distribution Determination.

6.5 IMPLEMENTATION AND ONGOING STAKEHOLDER ENGAGEMENT

The submission of this TSS represents an important step on the journey to more cost-reflective network prices.

We expect to be active participant in both government and industry led processes that help to address the impacts of cost-reflective network tariffs on customers, particularly vulnerable customers.

In addition, we will continue to work with all stakeholders to ensure that through out the transition we provide:

- ***Appropriate education*** and communication with customers
- ***Clear and consistent communication*** messages across industry
- ***Assistance measures*** for customers, including portals, calculation tools and appropriately trained call centre staff.

We will also continue work with our community to increase awareness and understanding of network tariffs and energy related issues.

We recognise that the actual level of tariffs will not be set until the 2016 annual pricing submission which will follow the final determination by the AER on United Energy's revenue for the 2016-2020 periods.

We will continue to work with all stakeholders to ensure that the customer impacts are minimised.

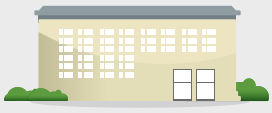
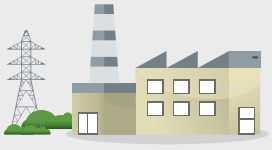
Customer impacts are related to the peakiness of the individual customer load profile. No analysed customer groups are sytematically advantaged or disadvantaged.

Tariff classes

7.1 TARIFF CLASSES

We have five tariff classes for standard control services.

UNITED ENERGY TARIFF CLASSES

	Tariff Class	Typical Customer	Tariff Name	Criteria	Voltage
	**Low Voltage Small**	Residential	Low Voltage Small One Rate (LVS1R)	<20 MWh annual energy usage	230 Volts
		The typical customer may also have a dedicated circuit tariff (for hot water/slab heating), which has an average usage of 2.8 MWh per annum.			
	**Low Voltage Medium**	Small Commercial	Low Voltage Medium One Rate (LVM1R)	20 to 400 MWh annual energy usage	<1,000 Volts
		Large residential customers may be included in this category.			
	**Low Voltage Large**	Large Commercial	Low Voltage Large kVA Time of Use (LVkVATOU)	>400 MWh annual energy usage and/or >150 kVA Maximum Demand	<11,000 Volts
	**High Voltage Large**	Industrial	High Voltage kVA Time of Use (HVkVATOU)	High voltage supply	11,000 to 22,000 Volts
	**Sub-transmission Large**	Large Industrial	Sub-transmission kVA Time of Use (SubTkVATOU)	Sub-transmission supply	> 66,000 Volts

PROPOSED TARIFF CLASS ALLOCATION

Tariff Class	Tariff Code	Open New Connection	Transition Approach
Low Voltage - Small	RESKWTOU	Yes	Available from 2015
	RESKWTOU (transition tariff)	From 2017	Transition to cost reflective by 2020
	S1	Yes	2017 - Transition to RESKWTOU and becomes the opt out tariff 2021 - Opt out customers migrate to RESKWTOU and close
	TOD (solar)	Yes	2017 - Transition to RESKWTOU and close
	TOD9	Yes	2017 - Transition to RESKWTOU and close
	TODFLEX	Yes	Transition to cost reflective by 2020
	S2 (OffPeak)	No	2017 - Transition to RESKWTOU and close
	S1WET	No	2017 - Transition to RESKWTOU and close
	DED	Yes	2021 - Transition to RESKWTOU and close
	UNM	Yes	N/A
	LVSKW	TBA	Opt in
	LVSCAP	TBA	Opt in
Low Voltage - Medium	LVMKWTOU	From 2017	Transition to cost reflective by 2020
	M1	Yes	2017 - Transition to LVMKWTOU and close
	TOU	Yes	2017 - Transition to LVMKWTOU and close
	M25	No	2017 - Transition to LVMKWTOU and close
	M27	No	2017 - Transition to LVMKWTOU and close
	KW-TOU	No	2017 - Transition to LVMKWTOU and close
	KW-TOU-HOT	No	2017 - Transition to LVMKWTOU and close
	RCAC	No	2017 - Transition to LVMKWTOU and close
	L1	No	2017 - Transition to LVMKWTOU and close
	L2	No	2017 - Transition to LVMKWTOU and close
Low Voltage - Large	L2-KVA	Yes	No change to tariff components
	L2-KVA-HOT	No	2016 - Migrate to L2-KVA and remove
High Voltage - Large	HV-KVA	Yes	No change to tariff components
	HV-KVA-HOT	No	2016 - Migrate to L2-KVA and remove
Sub-transmission - Large	ST22-KVA	No	-

Defining policy

WE ARE REQUIRED TO SET OUT OUR POLICIES AND PROCEDURES FOR ASSIGNING TARIFFS.

7.2 CUSTOMER ASSIGNMENT REQUIREMENTS

The Rules require us to set out its policies and procedures for assigning retail customers to tariffs or reassigning retail customers from one tariff to another (including any applicable restrictions). The AER is required to make a decision on these policies and procedures as part of its revenue determination.

In formulating its determination, the AER must have regard to the following principles:

1. Retail customers should be assigned to tariff classes on the basis of one or more of the following factors:
   i. the nature and extent of their usage the nature of their connection to the network
   ii. whether remotely-read interval metering or other similar metering technology has been installed at the retail customer's premises as a result of a regulatory obligation or requirement
2. Retail customers with a similar connection and usage profile should be treated on an equal basis
3. However, retail customers with micro-generation facilities should be treated no less favourably than retail customers without such facilities but with a similar load profile
4. A Distribution Network Service Provider's decision to assign a customer to a particular tariff class, or to re-assign a customer from one tariff class to another should be subject to an effective system of assessment and review.

In addition, clause 6.18.4(b) requires that:

> *If the charging parameters for a particular tariff result in a basis of charge that varies according to the usage or load profile of the customer, a distribution determination must contain provisions for an effective system of assessment and review of the basis on which a customer is charged.*

Information on our policies and procedures for assigning retail customers to tariffs, and reassigning retail customers from one tariff to another is presented in Appendix 9.

The AER is required to make a decision on these policies and procedures as part of its revenue determination.

7.3 TARIFF STRUCTURES AND CHARGING PARAMETERS

Our Network Use of System tariffs (NUoS) for standard control services reflect the underlying structure of both the Transmission Use of System (TUoS) and Distribution Use of System (DUoS) charges.

Below: *This table sets out the structure and charging parameters for each open network tariff, Appendix 2 contains further details on tariff structures and parameters.*

NETWORK TARIFF STRUCTURE AND CHARGING PARAMETERS

Charging Parameters	Units	UN MET	OPT OUT LVS 1R	LVS 1R*	RES kW TOU	LV Ded	TOD FLEX	LVS KW	LVS CAP	LVM kW TOU*	LVM kW TOU	LV kVA TOU	HV kVA TOU	SUBT kVA TOU
Standing / fixed	c/day		●	●	●		●	●	●	●				
Summer peak	c/kWh	●	●	●	●		●			●	●	●	●	●
Non-summer peak	c/kWh	●	●	●	●		●			●	●	●	●	●
Summer shoulder	c/kWh			●	●		●			●	●			
Non-summer shoulder	c/kWh			●	●		●			●	●			
Off-peak	c/kWh	●		●	●	●	●			●	●	●	●	●
Rolling peak demand	c/kVA/day											◉	◉	◉
Summer demand incentive	c/kVA/day											◉	◉	◉
Summer demand	c/kW/day			◉	◉		◉	◉		◉	◉			
Non summer demand	c/kW/day			◉	◉		◉	◉		◉	◉			
Off peak demand	c/kW/day							◉						
Summer capacity	c/kW/day								◉					
Non summer capacity	c/kW/day								◉					
Capacity over run	c/kW/day								◉					

● Charging parameter
◉ Charging parameter conditions detailed in Appendix 2.

** Transitional demand components*

Note: Jurisdictional pass throughs, incentive, metering and other pass through charges can be recovered for any network tariff with a c/day or c/kWh charge

Balancing costs

OUR AVOIDABLE COST MODEL RECOGNISES THAT ONLY A PORTION OF TOTAL COSTS ARE AVOIDABLE.

7.4 SETTING TARIFFS

As noted in Section 4.2, the Rules set out pricing principles that guide the development of network tariffs.

One principle requires that distribution tariffs should lie on or between:

- an upper bound representing the standalone cost of serving the retail customers who belong to that class
- a lower bound representing the avoidable cost of not serving those retail customers.

To demonstrate that distribution tariffs fall between the avoidable cost "floor" and standalone cost "ceiling", we apply a "cost of supply" methodology. Under that model, broadly speaking, tariff rates are set to recover the allocated distribution revenue (that is, cost) from each customer group.

As network businesses are characterised by relatively high fixed costs and significant asset sharing between customer groups, there is no unambiguously "correct" method for allocating costs. Our method is based on each tariff's relative usage of our assets.

In the model, customers are assigned into tariff groups based on voltage and demand characteristics. The usage and demand characteristics for each tariff group are calculated as follows:

- For asset based costs, a quantity of assets and supporting infrastructure are assigned to the tariff groups according to the combined usage and demand characteristics of all customers using the asset. For instance, high voltage (HV) assets are assigned to low voltage (LV) and HV customers, but not to sub-transmission customers. The cost of providing the assigned assets is then calculated for each customer class
- Operational and maintenance costs are directly attributed to particular asset classes, where possible, and the remaining costs are assigned to overheads
- Attributable costs are allocated using a weighted averaging approach which is applied to the customers in each class
- Overheads are averaged over all customers
- Combining the overhead, maintenance and infrastructure costs, the overall cost of supply for each customer is calculated.

Our avoidable cost model recognises that only a portion of total costs are avoidable. In particular, the majority of asset-related costs cannot be avoided even if a particular customer group is no longer served. Inevitably, the assessment of which costs are avoidable is a matter of judgement.

Inevitably, the assessment of which costs are avoidable is a matter of judgement.

OUR MODELLING OF STANDALONE COSTS IS SIMILARLY BASED ON THE COST OF SUPPLY MODEL.

The principal differences between the "basic" cost of supply estimates and standalone costs are:

One principle requires that distribution tariffs should lie on or between:

- Standalone networks to serve a particular tariff class will not enjoy the benefit of diversity in peak demand between tariff classes
- Economies of scale may be lost in supplying a subset of existing customers or tariffs
- Greater urban congestion may result in the optimised replacement cost exceeding United Energy's regulated asset value
- It is likely that a notional "standalone" competitor to United Energy may seek a rate of return that exceeds the regulated cost of capital.

These factors indicate that the standalone costs will exceed the cost of supply estimates on which we have based our tariff design.

It is important to recognise that it is difficult to determine the standalone costs with precision – inevitably a judgement must be made. The results of United Energy's modelling is provided in Appendix 7.

Clause 6.18.5(f) of the Rules also requires that each tariff must be based on the long run marginal cost (LRMC) of providing the service to which it relates to the retail customers assigned to that tariff.

The method of calculating such cost and the manner in which that method is applied must be determined having regard to:

1. The costs and benefits associated with calculating, implementing and applying that method as proposed
2. The additional costs likely to be associated with meeting demand from retail customers that are assigned to that tariff at times of greatest utilisation of the relevant part of the distribution network
3. The location of retail customers that are assigned to that tariff and the extent to which costs vary between different locations in the distribution network.

Our approach to estimating the LRMC divides the present value of the incremental investment associated with increasing demand by the present value of the increment in demand. This approach provides an estimate of marginal costs that is not materially different to the avoidable cost estimates. The results of the LRMC modelling are also provided in Appendix 1.

A further important principle requires cost recovery for each tariff. In particular, clause 6.18.5(g) states:

The revenue expected to be recovered from each tariff must:

1. *reflect the Distribution Network Service Provider's total efficient costs of serving the retail customers that are assigned to that tariff;*
2. *when summed with the revenue expected to be received from all other tariffs, permit the Distribution Network Service Provider to recover the expected revenue for the relevant services in accordance with the applicable distribution determination for the Distribution Network Service Provider; and*
3. *comply with sub-paragraphs (1) and (2) in a way that minimises distortions to the price signals for efficient usage that would result from tariffs that comply with the pricing principle set out in paragraph (f).*

Importantly, the pricing principles also require us to exercise judgment in setting tariffs, rather than simply apply a mechanistic or formulaic approach.

In particular, clause 6.18.5(h) of the Rules state that:

> *A Distribution Network Service Provider must consider the impact on retail customers of changes in tariffs from the previous regulatory year and may vary tariffs from those that comply with paragraphs (e) to (g) to the extent the Distribution Network Service Provider considers reasonably necessary having regard to:*
>
> 1. *the desirability for tariffs to comply with the pricing principles referred to in paragraphs (f) and (g), albeit after a reasonable period of transition (which may extend over more than one regulatory control period);*
> 2. *the extent to which retail customers can choose the tariff to which they are assigned; and*
> 3. *the extent to which retail customers are able to mitigate the impact of changes in tariffs through their usage decisions.*

Appendix 1 to 4 explain how we have exercised judgement in relation to the setting of each tariff, having regard to these matters.

Importantly, the pricing principles also require us to exercise judgment in setting tariffs, rather than simply apply a mechanistic or formulaic approach.

We regard the setting of tariff structures as an evolutionary process, not a revolutionary process. We will continue to monitor changes in the demand on our network as customers, retailers and other service providers respond to the new price signals.

8.1 LIST OF APPENDICES CONTAINED IN SUPPORTING DOCUMENT, TARIFF STRUCTURE STATEMENT: APPENDICES

The Appendices listed within are contained in the supporting document - Tariff Structure Statement: Appendices.

Appendix 1	Long Run Marginal Cost (LRMC)
Appendix 2	Tariff parameters
Appendix 3	Mapping of LRMC to tariffs and tariff parameters
Appendix 4	Customer impacts
Appendix 5	Assignment to tariff structures
Appendix 6	Indicative tariff schedule
Appendix 7	Stand alone and avoidable costs
Appendix 8	Compliance
Appendix 9	Tariff class assignment and tariff review process

8.2 CHECKLIST OF REQUIREMENTS FOR TARIFF STRUCTURE STATEMENT

VERSION 72 OF CHAPTER 6 [CURRENT AT 14 JUNE 2015], AND CLAUSE 11.76.2 OF THE NATIONAL ELECTRICITY RULES

Clause	Provision	Location within United Energy Documents
6.8.2(c)(7)	A proposed TSS must be accompanied by information that contains a description (with supporting materials) of how the proposal complies with the pricing principles for direct control services.	The pricing principles are discussed in **Section 4.2** and **Appendix 8** provides detail on how we comply with the principles.
6.8.2(c1a) & 11.76.2	The overview paper must also include a description of how we have engaged with retail customers and retailers in developing the proposed TSS and has sought to address any relevant concerns identified as a result of that engagement.	Our approach to stakeholder engagement, the feedback and how we incorporate this into the TSS is detailed in the **Stakeholder Engagement, Initiatives and Outcomes Overview Paper.**
6.8.2(d1) & 6.18.1A(e)	The proposed TSS must be accompanied by an indicative pricing schedule.	The schedule is attached in **Appendix 6** and the customer impact analysis is discussed in **Section 6.3**.
6.18.1A(a)(1) & 6.18.3(b) & (d)	The TSS must include the tariff classes into which retail customers for direct control services will be divided during the regulatory control period.	**Section 7**.
6.18.1A(a)(2) & 6.18.4(a)	The TSS must include the policies and procedures the Distribution Network Service Provider will apply for assigning retail customers to tariffs or reassigning retail customers from one tariff to another (including any applicable restrictions).	**Section 7.2** discusses our requirement for assigning customers and our policy is in **Appendix 9**.
6.18.1A(a)(3)	The TSS must include the structures for each proposed tariff.	The structures are displayed in in **Section 7.3** and discussed further in **Appendix 2, 5 and 6.**
6.18.1A(a)(4)	The TSS must include the charging parameters for each proposed tariff.	The charging parameters for each tariff are displayed in **Section 7.3** and further detail in **Appendix 2, 5 and 6.**
6.18.1A(a)(5)	The TSS must include a description of the approach we will take in setting each tariff in each pricing proposal during the regulatory control period.	**Sections 5.2** to **5.7** and **Section 7.4**.

For Information:
Clause 6.12.3(k) states: The AER must approve a Distribution Network Service Provider's proposed tariff structure statement unless the AER is reasonably satisfied that the proposed tariff structure statement does not comply with the pricing principles for direct control services or other applicable requirements of the Rules.

8.3 DEFINITION OF TERMS

Term	Definition
AEMC	Australian Energy Market Commission
AER	Australian Energy Regulator
AMI	Advanced Metering Infrastructure
CCC	Consumer Consultative Committee
CUAC	Consumer Utilities Advocacy Centre
DUOS	Distribution use of system
EDPR	Electricity Distribution Price Review
EV	Electric Vehicle
HV	High Voltage
kW	Kilowatts, the measurement unit of real power, the amount of apparent power converted into energy and work.
kWh	Kilowatt hour, the unit used for the measurement of energy, the product of power (kW) and time (hours).
kVA	Kilo-Volt-Ampere, the measurement unit of apparent power, the true amount of power transported across the distribution network.
LRMC	Long Run Marginal Cost
LV	Low Voltage
NUOS	Network use fo system
PFiT	Premium Feed in Tariff
Power Factor	A measure of efficiency of electricity usage, the ratio of real power used the within apparent power delivered.
PV	Photovoltaic
SCAAB	Springvale Community Aid and Advice Bureau
SUBT	Sub-Transmission
TFiT	Transitional Feed in Tariff
TOU	Time of Use
TSS	Tariff Structure Statement
WACC	Weighted Average Cost of Capital
Workdays	Standard business days not including public holidays and weekends.
X-FACTORS	The annual adjustment to the allowed network providers revenue to minimise the year-on-year variance, reduce volatility and provide price stability for customers.

LVS1R, LVM1R, LVkVATOU, HVkVATOU, SubTkVATOU, RESKWTOU and **LVMKWTOU** are United Energy network tariffs.

For more information about the Rule change to Distribution Network Pricing Arrangements and basis for the TSS, visit:

aemc.gov.au/Rule-Changes/Distribution-Network-Pricing-Arrangements

To continue following our network tariff reforms and learn more about this and other initiatives, visit:

unitedenergy.com.au/customers/your-electricity/network-tariff-reform

The AER will seek consultation on United Energy's TSS, for details of tariffs and pricing proposals submitted to the AER visit:

aer.gov.au/networks-pipelines/determinations-access-arrangements/pricing-proposals-tariffs

We distribute electricity to more than 650,000 customers across east and south-east Melbourne and the Mornington Peninsula.

Creating
The Intelligent
Utility

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