Electricity tariff reform in NSW
An invitation to comment

September 2015

Ausgrid Endeavour Energy essential energy

Contents

Ausgrid Endeavour Energy essential energy

1. Introduction

1.1 Overview

Ausgrid, Endeavour Energy, and Essential Energy are companies that distribute electricity to communities across NSW (sometimes called the 'poles and wires' businesses).

The opinions and views of our customers and stakeholders are extremely important to us as we deliver our services and work to meet the needs of the communities that we serve.

In our conversations with customers and stakeholders over the past two to three years we know that our customers' priorities are for affordable, reliable and safe electricity. We also know our customers value stable electricity bills.

Network charges - the prices that Ausgrid, Essential Energy and Endeavour Energy charge to distribute electricity to homes and businesses - make up about 40% of the average residential electricity bill. These charges are passed on to customers by electricity retailers. The remainder of your electricity bill is made up of the retail, generation and renewable energy scheme costs, like the solar bonus scheme.

It is the retailer who decides the final cost of your electricity bill.

Over the past few years consumption of electricity in NSW has been stable or declining: and there has been negligible growth in peak electricity demand. Roof top solar continues to grow across the state.

This means there is little need for further capital investment to manage peak demand growth in electricity networks over the next few years, although replacing assets as they age remains important.

In NSW most homes are equipped with an inexpensive accumulation meter; which simply measures the total amount of electricity consumed as read by a meter reader every three months. This means most NSW customers do not yet have a 'smart' or interval meter to help them understand the detail of their electricity consumption.

These issues underpin Ausgrid, Endeavour Energy and Essential Energy's thinking on tariff design.

All three businesses are committed to keeping downward pressure on electricity prices, while complying with new National Electricity Objective for a safe, reliable and efficient network in the long term interests of customers.

Your network tariff is the amount charged for providing you access to the 'poles and wires' network to deliver electricity to your home or business. It includes fixed charges, plus charges that can vary based on how much electricity you use, and what time of day you use your electricity (for example, at 'peak' times, and during 'off peak' times).

Since 2013, electricity distributors in NSW have been shifting their tariffs for most domestic (residential) customers so that your network charge becomes progressively cheaper as your consumption increases. This is called a 'declining block tariff'. Historically, these tariffs were 'inclining block tariffs' meaning the more you consumed the higher the costs you paid.

These tariff reforms have allowed Ausgrid, Endeavour Energy and Essential Energy to adjust to changing market conditions and challenges. The reforms are also designed to give our customers greater certainty around pricing and help them avoid "bill shock".

The Australian Energy Regulator (AER) – the national regulator that oversees the electricity industry - approved the declining block network tariffs for the three NSW networks to apply from 1 July 2015.

At the same time, the National Electricity Rules (which guide how customers are charged for electricity) require electricity distributors to charge tariffs that promote efficient use of their distribution networks.

1. Introduction

Electricity network costs are largely fixed. Our regulator, the AER, caps the revenue we are allowed to collect from customers each financial year. This means that if electricity consumption goes up, network charges go down. If electricity consumption goes down, prices go up. It is in the interests of most consumers to maintain the utilisation of the network. Declining block tariffs help us achieve that objective.

These reforms were initiated by the Council of Australian Governments (COAG), and require the Australian Energy Regulator (AER) to make sure that electricity distributors comply with the new Rules.

These Rules require network businesses in setting charges to signal the forward-looking costs of providing network services to customers.

Ausgrid, Endeavour Energy and Essential Energy are preparing their tariff proposals for the period 1 July 2017 to 30 June 2019, to submit to the AER in November this year.

As we develop our tariff proposals, and consider how we may need to change our tariffs to meet the new Rules and requirements, we're seeking input and feedback from our customers and stakeholders. This feedback will help shape our Tariff Structure Statement (TSS) – the document we are required to lodge with the AER to explain how we have set our tariffs, and how our proposal satisfies the principles set out in the Rules.

The new Rules, and how Ausgrid, Endeavour Energy and Essential Energy comply with them, are aimed at promoting the long term efficient use of, and investment in the electricity distribution network in NSW.

More efficient use and investment will ultimately lead to lower network prices, while preserving a safe, secure, and sustainable network service for customers.

However, we're also highly conscious of the potential for tariff changes to affect our customers. We're seeking the input and insight of our customers to help guide the decisions that we make.

To inform our discussions with you about future electricity tariffs, we have prepared this paper to:

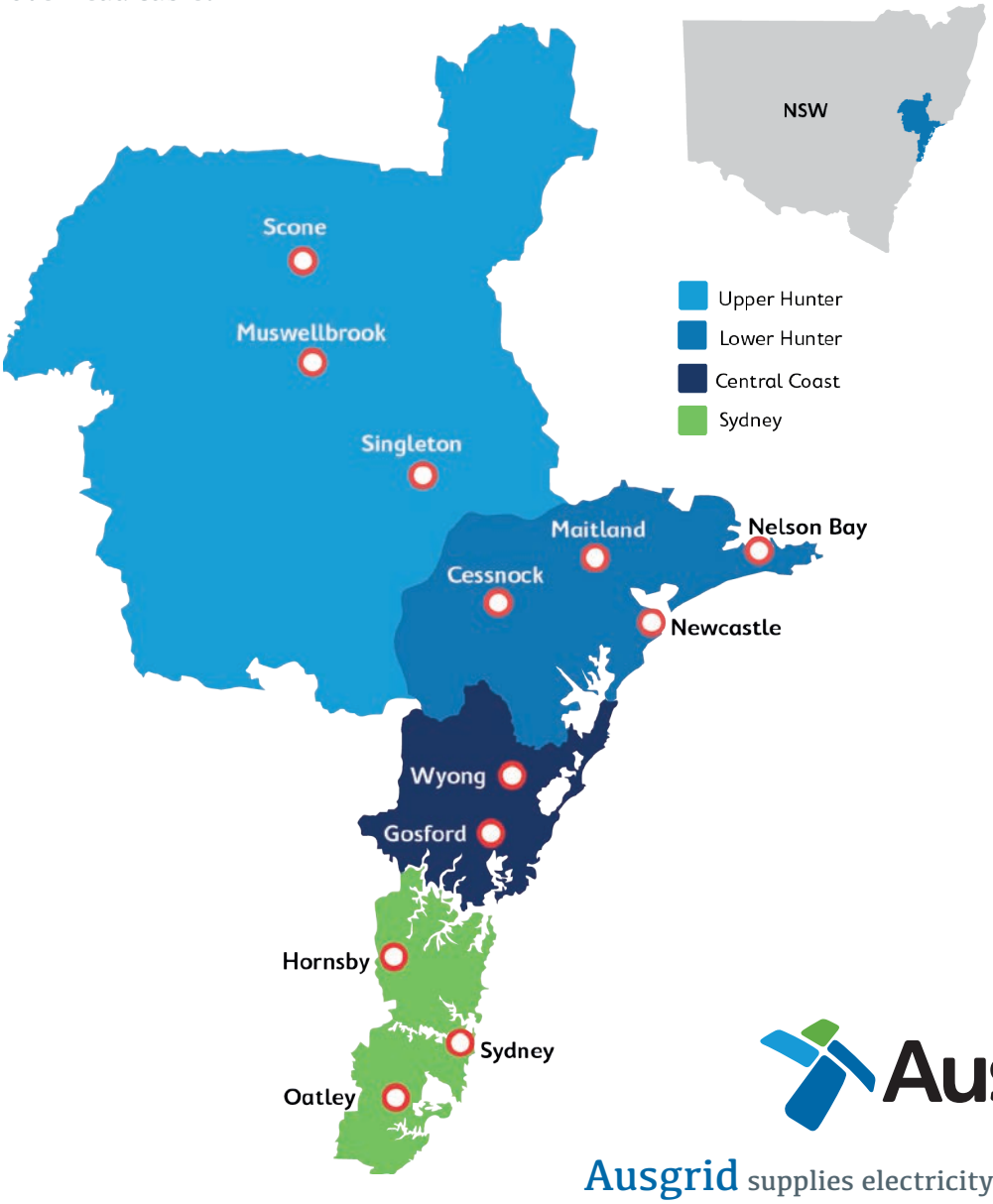
- explain our existing tariffs and how they affect your bills;
- describe reforms that we have already implemented, and chart their progress;
- detail how we engage with our customers, and how we plan to continue to do this in the future; and
- ask you to provide your feedback.

The three businesses are grateful to the customers and consumer and community groups that have already participated in the consultation and engagement process. We look forward to hearing more from our stakeholders and working closely with them on tariff reform.

1.2 About us

Ausgrid, Endeavour Energy and Essential Energy, working together as Networks NSW, are responsible for distributing electricity in a safe, reliable and sustainable manner across NSW.

The combined network has more than 800 major substations, 2.2 million poles and 190,000 smaller substations bound together by 279,000 kilometres of underground and overhead cable.



Ausgrid supplies electricity to more than 1.6 million customers in Sydney, the Central Coast and the Hunter Region.

1.2 About us - Endeavour Energy

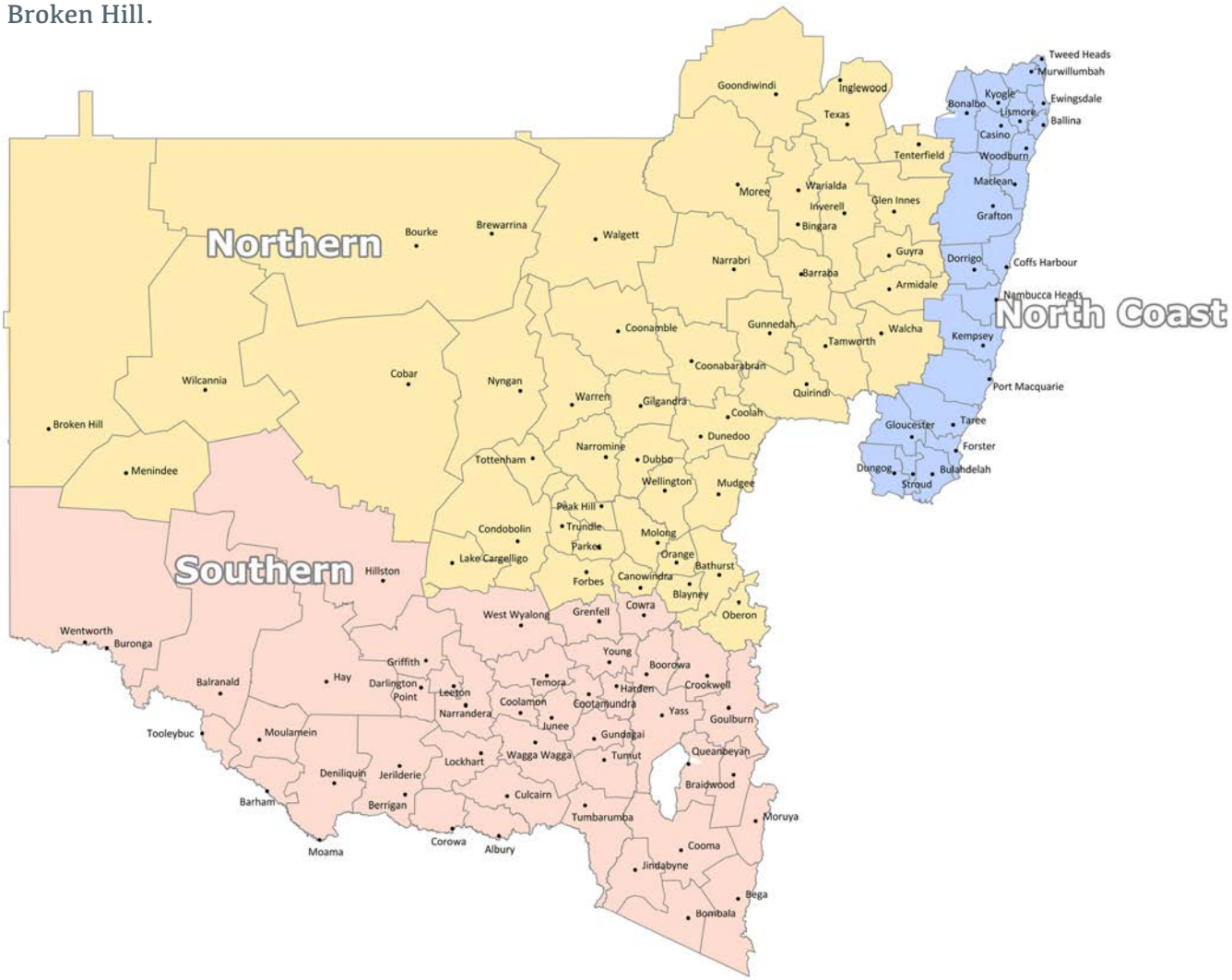
Endeavour Energy

Endeavour Energy manages an electricity distribution network for approximately 934,000 customers or 2.3 million people across a network spanning Sydney's Greater West, the Illawarra and South Coast, the Blue Mountains, and the Southern Highlands.

1.2 About us - Essential Energy

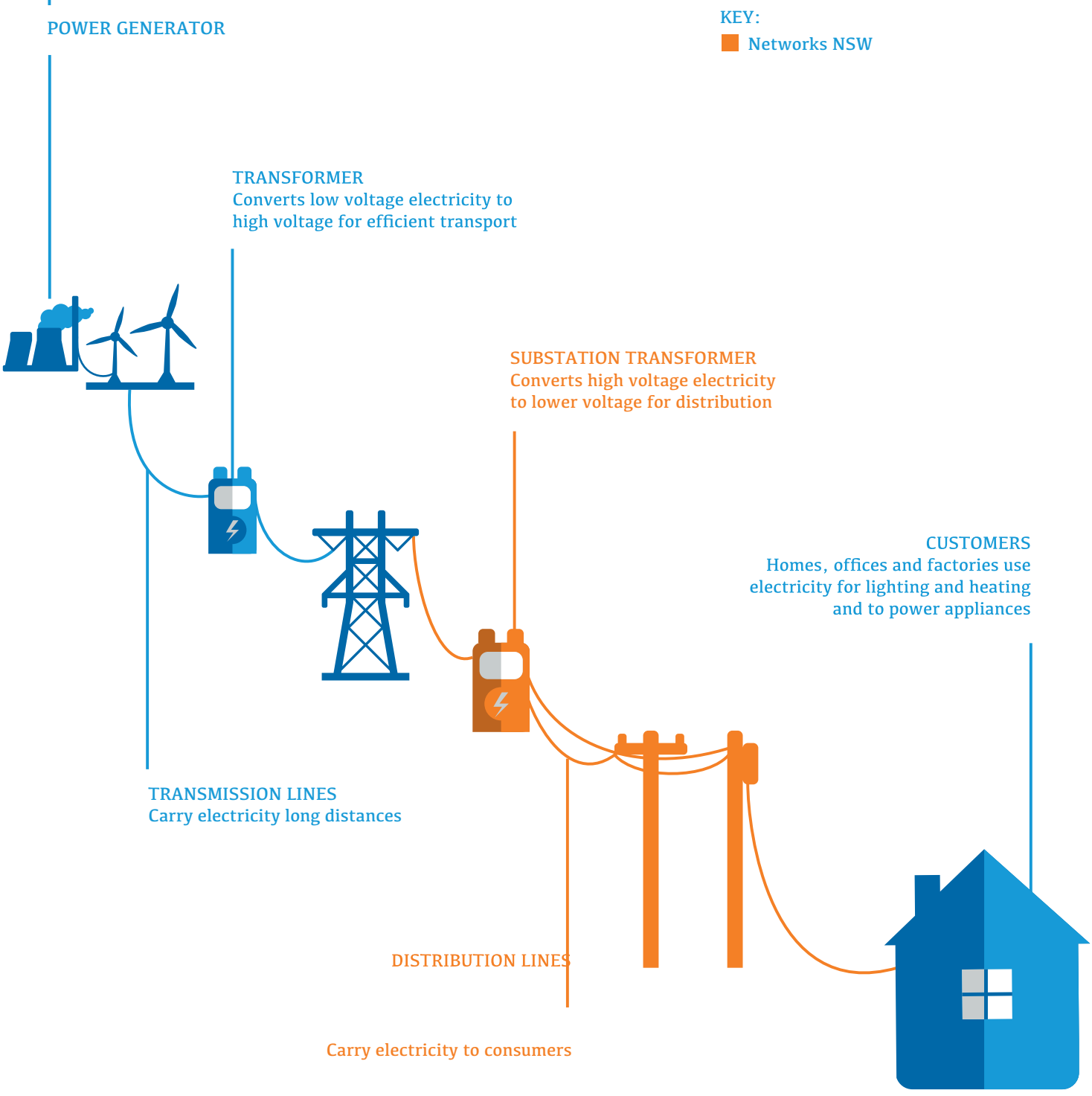
Essential Energy is responsible for building, operating and maintaining Australia's largest electricity network. It delivers services to more than 800,000 homes and businesses across 95 per cent of NSW and parts of southern Queensland.

It also provides water services through its Essential Water business, which delivers water to about 20,000 people in Broken Hill, Menindee, Sunset Strip and Silverton, and sewerage services to Broken Hill.



1.2 About us - The Electricity Network

How our network gets electricity to your place



1.3 Listening to our customers

Consulting and engaging our customers and the community is integral to how we run our businesses.

We encourage customers and stakeholders to respond to this issues paper by **30 October 2015** and tell us what you think of our proposals for future tariffs.

We're asking for feedback on this discussion paper by using the site we have created on the NSW Government's Have Your Say online feedback website.

Please visit **www.haveyoursay.nsw.gov.au** and comment on electricity tariff reform in NSW.

In addition to this paper, we are continuing to consult a range of stakeholders about our tariff reform program, including residential and small business customers, industry, consumer and social welfare advocacy groups, and electricity retailers.

In particular, we are seeking to capture and understand ***your answers to these questions:***

a) How well do you understand tariffs and how they apply to you?

b) Do you have enough information about different kinds of tariffs and how they relate to your electricity bill?

c) What kinds of tariffs would most suit your household/small business?

d) What should we take into account that has not been discussed in this document?

1.4 How we are engaging our customers and stakeholders about tariffs

2013/2014/2015 Phase 1

- Discussion on tariff reform starts in 2013/14
- The tariff conversation is triggered through a range of workshops, roundtables and other consultations conducted by NNSW and the three network businesses

Sept - Oct 2015 Phase 2

- More detailed focus on tariff reform including:
- face-to-face interviews with stakeholders
- release of an issues paper
- roundtable for vulnerable customers
- roundtable for retailers
- roundtable for environmental groups
- reaching out to customers through social media to listen to their views
- inviting comment through an online portal

Nov 2015 - Sept 2016 Phase 3

- Feedback to stakeholders on their submissions to the issues paper
- Development of plain English TSS for customers
- Submit draft TSS to AER for review
- Complete quantitative and qualitative research
- Embed engagement on tariffs in community engagement plans for each network business
- Conversation with customers continues

Source: NNSW, 2015

1.5 What are tariffs?

Your tariff is the amount charged for providing energy under your electricity contract. It includes both fixed and variable charges. Note that this definition includes retail and network charges.

The fixed charge:

• Is often based on a cents per day charge, or may appear as a single amount for a billing period. It does not vary based on how much energy you use. It is often called the 'daily supply charge' or 'service to property' charge, and is separately itemised on your electricity bill. The fixed charge represents about around 30% of an average customer's annual bill for network services, based on average consumption.

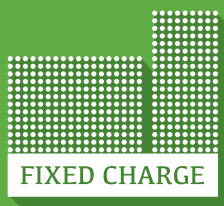
The variable charge:

•The variable or 'consumption' charge is the amount you pay for each unit of electricity that you use. It is listed on your bill as cents per kilowatt hour (c/kWh). Energy charges represent about 58% to 75% of an average customer's annual bill for network services, even though overall energy consumption has little impact on the costs of the network.

Source: Australian Energy Regulator, and amended.

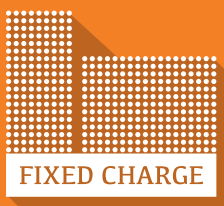
Different types of tariffs

Inclining block



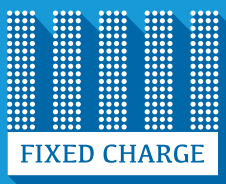
Different rates are charged for electricity use. The first part of electricity use is cheaper than all usage after it. This was the most common tariff for households in NSW.

Declining block



The first part of electricity use is more expensive than all usage after it. This is now the most common tariff for households in NSW.

Flat tariff



All electricity use is charged at one price.

Time-based pricing

The rate for electricity use changes at different times of the day. It is usually cheaper in off peak periods and more expensive in peak times.

Capacity or demand change

A charge based on the maximum amount of electricity used during a period of time. Usually applies to large businesses and covers costs for networks to meet business peak use.

Load control

A cheaper rate is charged to allow networks to turn off appliances in your home at certain times, like off peak hot water.

1.6 Current NSW tariffs

The following tables show the three businesses' current tariff structures and the pricing impacts for customers in 2014-15 and 2015-16. The businesses have varying tariff structures, but all offer declining block tariffs for residential customers. Modelling from each of the businesses shows that householders on declining block tariffs will notice bill reductions in 2015-16 as the businesses work to drive down network costs.

Note that the 2015/16 tariffs for Ausgrid, Endeavour Energy and Essential Energy shown on the following pages are based on the AER final determinations dated 30 April 2015 which are subject to legal appeals before the Australian Competition Tribunal.

Ausgrid Table 1: Current tariff structure

Customer type	Voltage	Default Tariff Structure	Optional Tariff Structure
Residential	Low voltage customers	DBT	TOU
Non-residential (<160 MWh pa)	Low voltage customers	DBT	TOU
Non-residential (<160 MWh pa)	Low voltage customers	TOU + peak capacity/demand	n/a
Non-residential (> 160MWh pa)	Low voltage customers	TOU + peak capacity/demand	n/a
Non-residential	High voltage customers	TOU + peak capacity/demand	n/a
Non-residential	Subtransmission customers	TOU + peak capacity/demand	n/a
Non-residential	Unmetered customers	UM	n/a

- **DBT = Declining block tariff** (unit price of energy gets lower the more energy is consumed)
- **IBT = Inclining block tariff** (unit price of energy gets higher the more energy is consumed)
- **TOU = Time of use tariff** (unit price of electricity varies based on the time of day it is consumed – Peak, Shoulder Off-Peak.)
- **Seasonal demand** = TOU tariff plus a seasonal peak demand based charging component.

* All tariffs include a fixed charge ($ per day) in addition to the consumption based structures listed above.
* TOU and seasonal demand tariffs require advanced metrology (interval and smart meters).

Table 2: Expected bill impacts for customers on Ausgrid's residential block tariff.

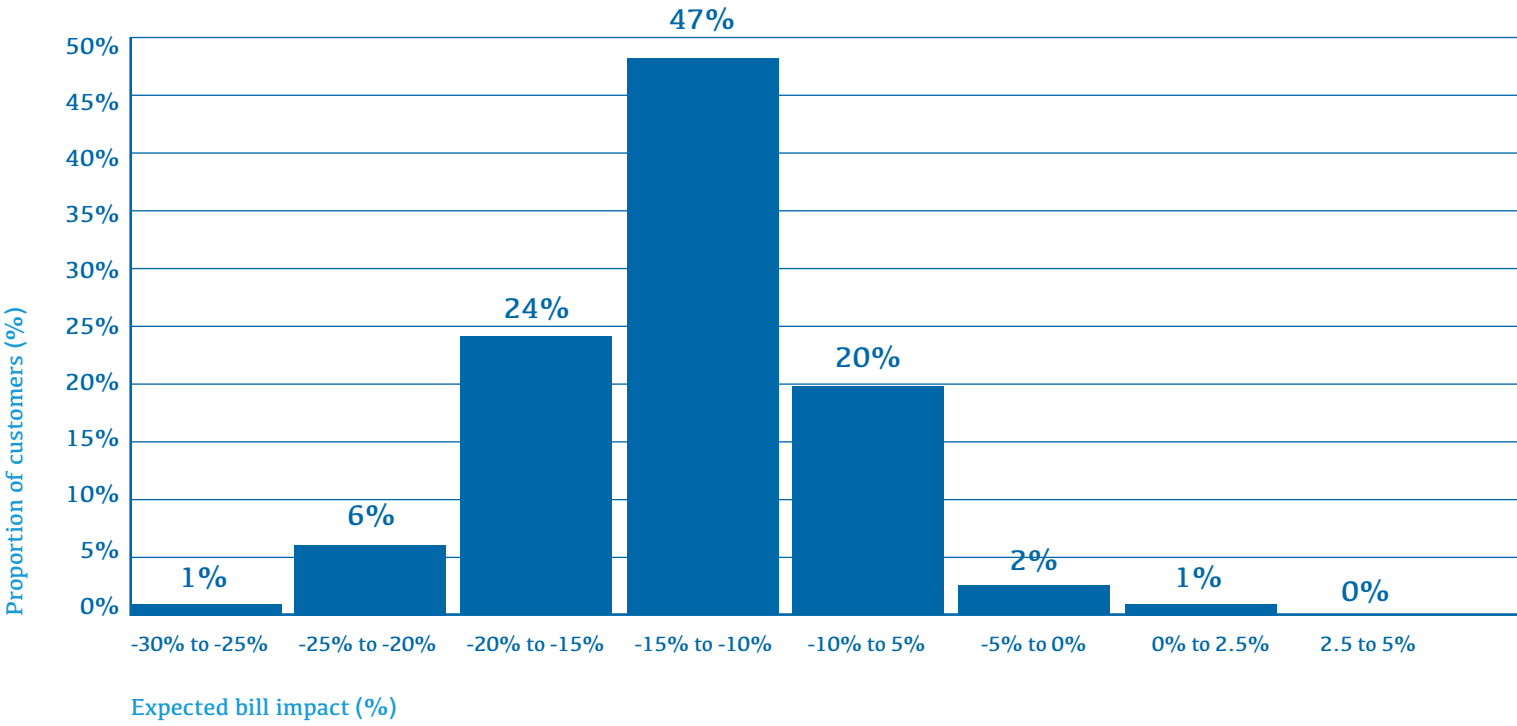
Declining block tariff - residential (EA010)

Annual consumption (kWh)	Network bill ($pa)		Change network bill (%)
	2014-15	2015-16	
2,000	403.40	365.76	-9.3%
5,000	800.30	687.07	-14.1%
7,000	1079.52	897.47	-16.9%
10,000	1518.24	1208.04	-20.4%
15,000	2266.00	1721.47	-24.0%

Note: the 2015/16 tariff is based on the AER final determination dated 30 April 2015 which is subject to legal appeal before the Australian Competition Tribunal.

1.6 Current NSW tariffs - Ausgrid

Declining block tariff - residential (EA010)



Time of use - residential (EA025)

Annual consumption (kWh)	Network bill ($pa)		Change in network bill (%)
	2014-15	2015-16	
2,000	373.12	376.32	0.9%
5,000	644.42	645.38	0.1%
7,000	825.57	824.75	-0.1%
10,000	1096.57	1093.80	-0.3%
15,000	1548.72	1542.23	-0.4%

Note: EA025 is based on a Peak, Shoulder and Off Peak split of 21%, 50% and 29% respectively

1.6 Current NSW tariffs - Endeavour Energy

Endeavour Energy Table 1: Current tariff structure

Customer type	Voltage	Default tariff structure	Optional tariff structure
Residential	LV	DBT	TOU
Non-residential (<160 MWh pa)	LV	IBT	TOU
Non-residential (>160 MWh pa)	LV	Seasonal demand	n/a
Non-residential	HV	Seasonal demand	n/a
Non-residential	ST	Seasonal demand	n/a

- **DBT = Declining block tariff** (unit price of energy gets lower the more energy is consumed)
- **IBT = Inclining block tariff** (unit price of energy gets higher the more energy is consumed)
- **TOU = Time of use tariff** (unit price of electricity varies based on the time of day it is consumed – Peak, Shoulder Off-Peak.)
- **Seasonal demand** = TOU tariff plus a seasonal peak demand based charging component.

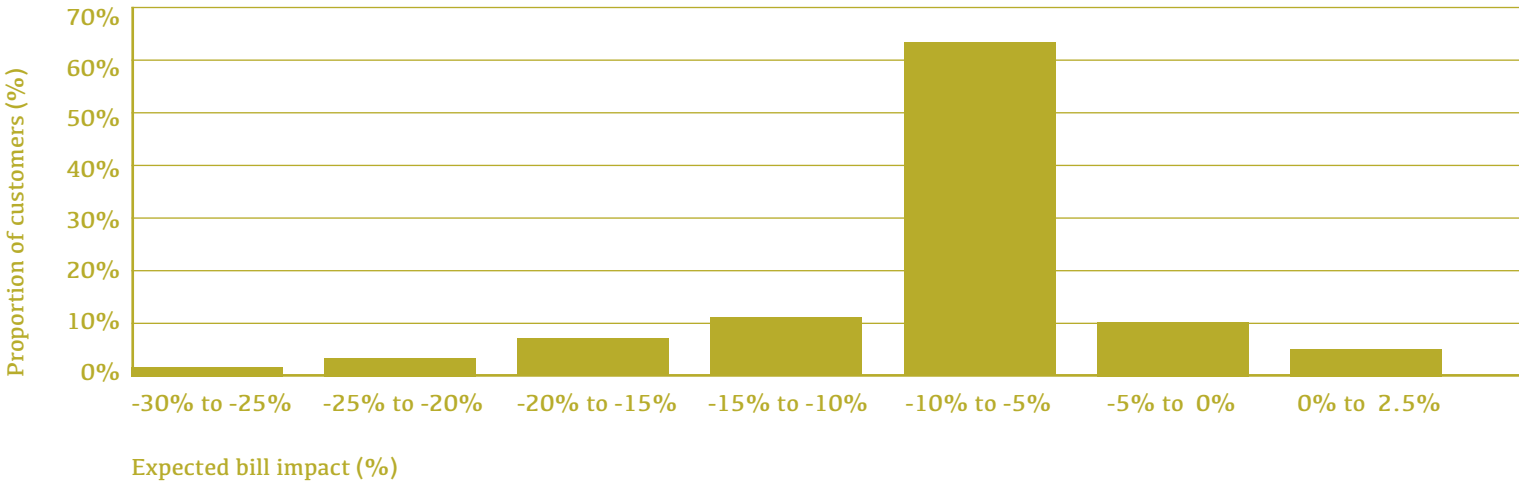
* All tariffs include a fixed charge ($ per day) in addition to the consumption based structures listed above.
* TOU and seasonal demand tariffs require advanced metrology (interval and smart meters).

Table 2: Expected bill impacts for customers on Endeavour Energy's residential block tariff

Annual consumption (kWh)	Network bill ($pa)		Change in network bill (%)
	2014-15	2015-16	
2,000	348.72	328.53	-5.1%
5,000	675.52	614.27	-9.1%
7,000	893.39	796.90	-10.8%
10,000	1268.21	1038.12	-18.1%
15,000	1892.92	1440.15	-23.9%

Note: the 2015/16 tariff is based on the AER final determination dated 30 April 2015 which is subject to legal appeal before the Australian Competition Tribunal.

Residential DBT (N70) (Expected network bill plus metering impact - 2015/16)



Ausgrid Endeavour Energy essential energy

1.6 Current NSW tariffs - Essential Energy

Essential Energy Table 1: Current tariff structure

Customer type	Voltage	Default tariff structure	Optional tariff structure
Residential	LV	DBT	TOU
Non-residential (<160 MWh pa)	LV	DBT	TOU
Non-residential (>160 MWh pa)	LV	Demand	Seasonal demand
Non-residential	HV	Demand	Seasonal demand
Non-residential	ST	Demand	n/a

- **DBT = Declining block tariff** (unit price of energy gets lower the more energy is consumed)
- **IBT = Inclining block tariff** (unit price of energy gets higher the more energy is consumed)
- **TOU = Time of use tariff** (unit price of electricity varies based on the time of day it is consumed – Peak, Shoulder Off-Peak.)
- **Seasonal demand** = TOU tariff plus a seasonal peak demand based charging component.

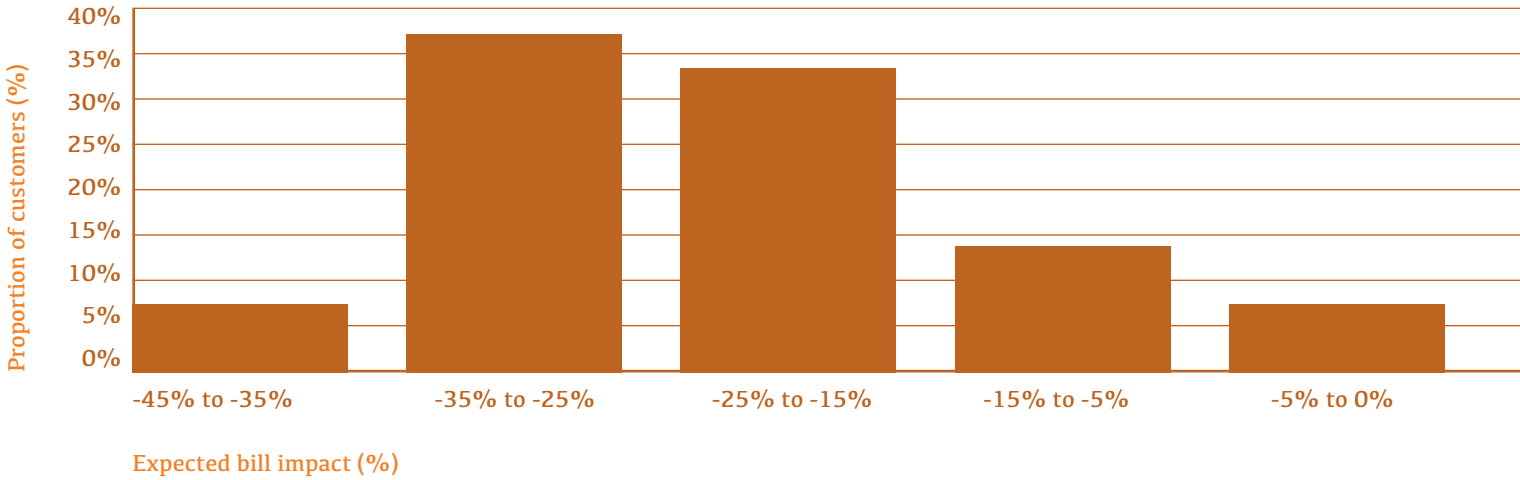
* All tariffs include a fixed charge ($ per day) in addition to the consumption based structures listed above.
* TOU and seasonal demand tariffs require advanced metrology (interval and smart meters).

Table 2: Expected bill impacts for customers on Essential Energy's residential block tariff.

Annual Consumption (kWh)	Network bill ($pa)		Change in network bill (%)
	2014-15	2015-16	
2,000	636.28	502.88	-20.97%
5,000	1,120.34	783.66	-30.05%
7,000	1,443.04	966.61	-33.02%
10,000	1,927.10	1,231.50	-36.10%
15,000	2,733.86	1,672.97	-38.81%

Note the 2015/16 tariffs are based on the AER final determinations dated 30 April 2015 which are subject to legal appeals before the Australian Competition Tribunal.

Residential DBT (BLNN2AU) (Expected network plus metering impact - 2015/16)



2. Tariff reform 2014 - 2015

2.1 Tariff Structure Statements

The National Electricity Rules (the Rules) were amended in December 2014 to include pricing arrangements for how electricity distributors such as Ausgrid, Endeavour Energy and Essential Energy charge for distributing electricity.

These new arrangements are part of changes and reforms initiated by the Council of Australian Governments (COAG) Energy Council, in response to the Australian Energy Market Commission's (AEMC) 'Power of Choice' recommendations. The purpose of these recommendations is to help consumers better participate in energy markets.

These new regulations require electricity networks to set electricity tariffs that signal the forward-looking costs of providing electricity services to customers. Put simply, the new Rules require the price of electricity tariffs to be set so that they promote the efficient use of electricity networks.

The new Rules also require each electricity distributor to document and explain how and why they set their tariffs. Each business must prepare a Tariff Structure Statement (TSS), which explains how the distributor will set tariffs, and how its decisions satisfy the Rules.

An important part of developing the Tariff Structure Statements for Ausgrid, Endeavour Energy and Essential Energy is for us to engage with customers and stakeholders about our tariff strategies. The AEMC Rules set four new pricing principles for our businesses.

1. Each network tariff must be based on the long run marginal cost (LRMC) of providing the service. If consumers choose to take actions that will reduce future network expenditure, then they will be rewarded with lower network charges. Network businesses will have flexibility about how they measure LRMC but the approach will be considered by the AER.

2. The revenue to be recovered from each network tariff must recover only the total efficient costs of providing services in a way that minimises distortions to price signals, encouraging efficient use of the network by consumers - that is, tariffs based on the LMRCs of providing the service.

3. Tariffs are to be set in line with a new 'consumer impact principle'. This requires the distribution businesses to consider the impact on consumers of changes in network tariffs, and to develop tariff structures that are able to be understood by consumers. Consumers are more likely to respond to signals that network tariffs are designed to send if they can relate decisions about how they use electricity to network tariff structures, and sudden tariff changes are avoided. If necessary, distributors can phase-in new tariff structures gradually, over several years, to minimise the impact on consumers.

4. Network tariffs must comply with pricing obligations imposed by state or territory governments. If network businesses need to depart from the above principles to meet state or territory pricing obligations they must do so transparently and only to the minimum extent.

2.2 What is a Tariff Structure Statement?

In April 2015 the AER set the total annual revenue that the NSW network businesses can recover for their main network services. The TSS of each business will describe how we will set prices for main (or "standard control") services to comply with the AER determination. Our TSSs will include pricing structures for other regulated services we deliver:

- ancillary network services associated with activities for specific customers;
- metering services to measure customer energy consumption; and
- public lighting services provided to customers via local councils.

2.3 Our tariff reform timeline

The AER has already set pricing for the services noted above for the duration of this regulatory period, so the TSS will focus mainly on tariffs for standard control network services. The Rules require that our TSSs must include:

- the tariff categories into which customers will be divided;
- the policies and procedures the distributor will use to assign customers to a particular tariff, or reassign customers from one tariff to another;
- the structures for each proposed tariff;
- charges associated with each proposed tariff; and
- a description of the approach distributors will take to setting each tariff during the regulatory control period.

A TSS must be accompanied by a schedule that indicates what prices will be charged for each tariff during each year of the regulatory period (2017–2019). The TSS may be modified during the regulatory period following a consultation process, and with the approval of the AER. When distributors prepare their tariff charges, they must consider the impacts of charges on our customers. We may vary otherwise efficient prices to address customer impacts.

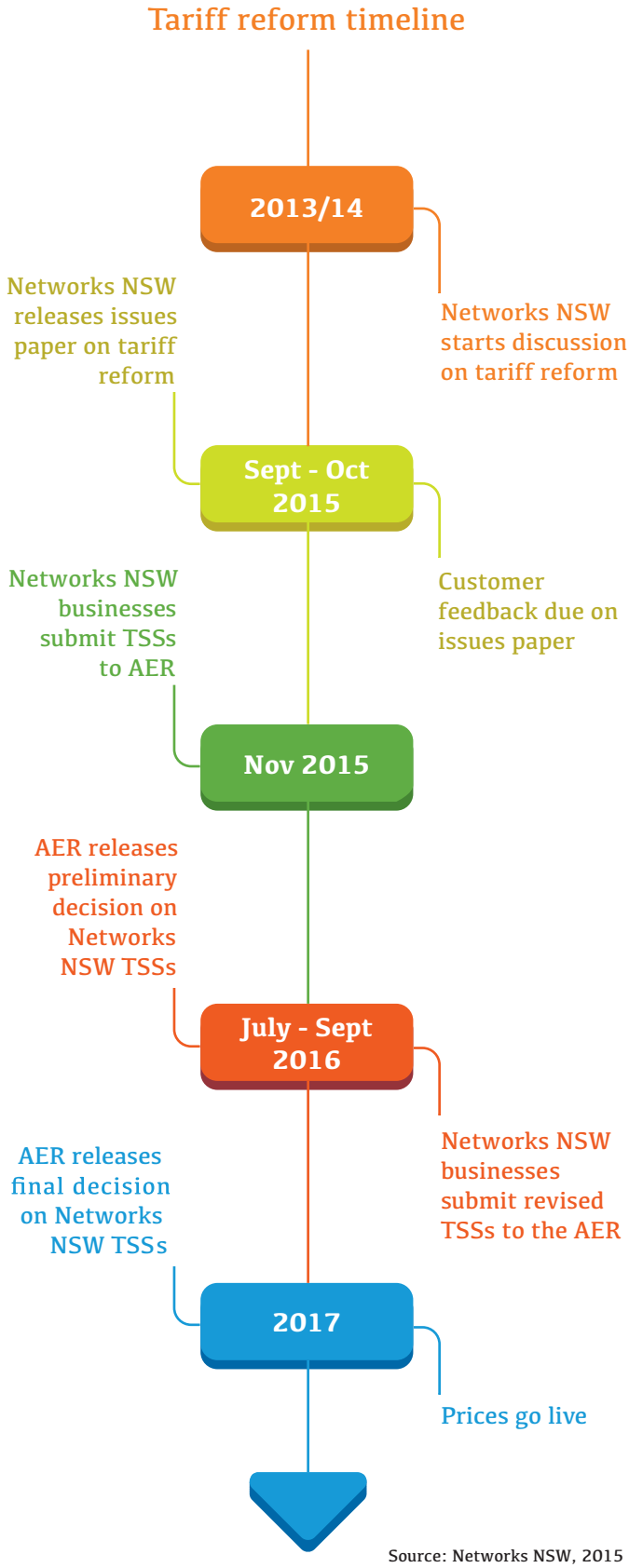
2.3 Our tariff reform timeline

Each respective TSS from Ausgrid, Endeavour Energy and Essential Energy must be submitted to the AER by November 27 this year.

The AER will then review the documents and provide a draft decision on July 1, 2016.

If necessary, the three businesses will then have 45 business days (until September 2, 2016) to provide a revised TSS to the AER. The AER will make a final decision on Tariff Structure Statements by January 30, 2017.

Tariffs nominated in the TSS will be effective from July 1, 2017.



Source: Networks NSW, 2015

2.4 Our tariff reform process

Our progression towards a declining block tariff structure for residential and small business customers started two years ago when we began talking with stakeholders about our plans to move to flatter, then declining block tariffs.

That conversation was prompted by the recognition that current tariff structures did not adequately address the needs of our customers, and the range of challenges facing our businesses.

We signalled our intention to rethink tariff options in our regulatory submissions to the AER, and in our annual pricing proposals, to help keep electricity bills more stable and predictable over time.

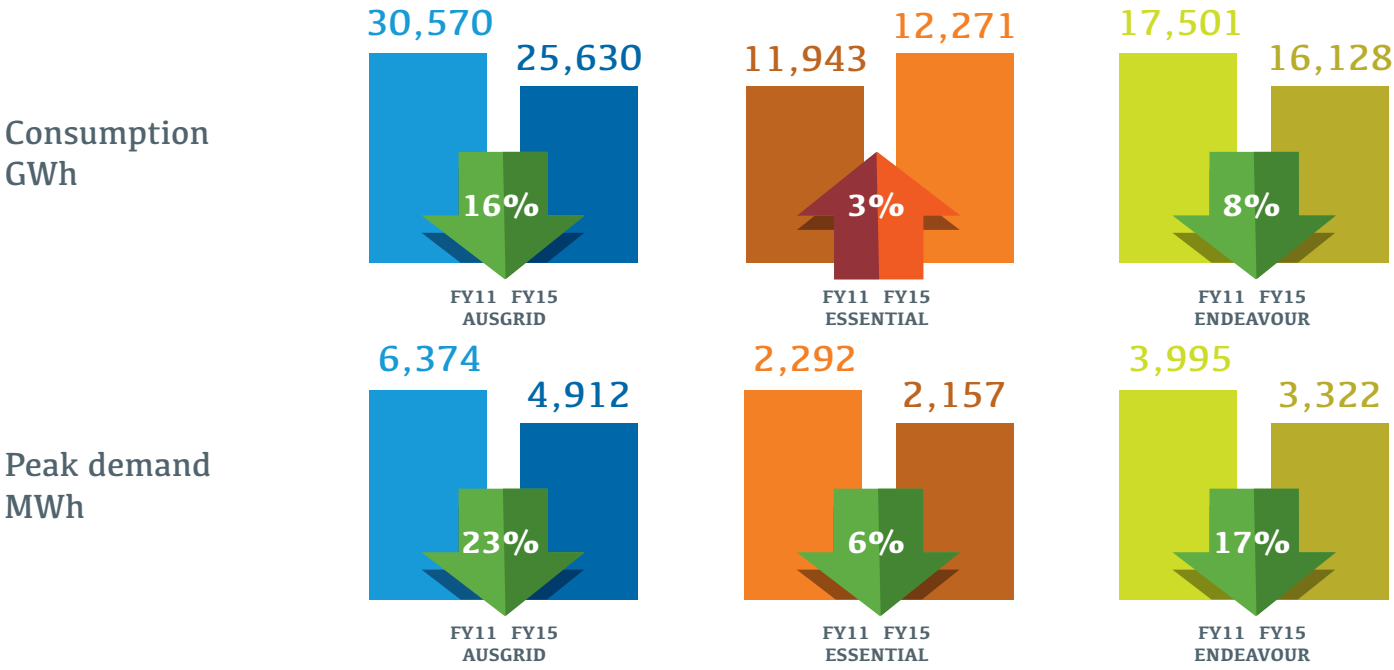
Over the past few years, stable and more predictable electricity bills have been clearly identified by our customers as a priority. In our engagement with stakeholders, we flagged that we were considering declining block tariffs to comply with the Rules requiring us to move to a structure that promotes efficiency, and provide price stability and equity for customers.

As noted earlier in this paper, NSW is experiencing declining or stable electricity consumption and stable peak demand. This means there is little need to expand the network other than for new residential or business developments.

As a result, if customers decide to increase electricity use, that extra demand will generate relatively minor increases in the money we will need to spend on our networks. This means the LRMC of our network services is relatively low.

The fact that most electricity meters in NSW for residential and small business customers are 'basic' or accumulation meters (that do not record the time of day when electricity is consumed) means most customers' homes are not equipped with the kind of meters needed to introduce time of use or demand tariff structures (see Page 10 for more details.)

Consumption and peak demand figures for the three businesses



Source: Ausgrid, Endeavour Energy and Essential Energy, 2015 * Growth in consumption in the Essential Energy network is a result of increased demand from large mines on specific cost reflective tariffs, with residential consumption falling by around seven per cent over the same period.

2.4 Our tariff reform process

Over the past two years, the electricity distribution businesses in NSW have been moving from flat or inclining tariffs for most domestic customers, to declining block tariffs, while also offering customers the choice to "opt in" to a voluntary time of use tariff.

Consistent with the efficient pricing requirements in the Rules, the three businesses have moved away from inclining block tariffs to a pricing structure with less reliance on the recovery of revenues from the higher and more price sensitive energy consumption block.

While our tariffs have historically taken account of the LRMC of the network, the new Rules require us to base our tariffs on LRMC.

Our LRMC has fallen considerably as a result of significant investment in our network combined with a significant fall in consumption and demand in recent years.

If our LRMC increases, then the efficient pricing requirements in the Rules would require us to set higher usage charges.

The Rules also require that the residual costs of the network, or those not related to the LRMC-based usage charges, are recovered in a way that minimises pricing distortions. This means that residual costs should generally not be allocated to the most price sensitive tariff components. This could be the higher energy consumption blocks.

We recognise there remains a mismatch between current tariffs and those that would be charged solely on an "efficient" basis. Therefore changes to tariffs to move to lower LRMC-based costs and the efficient allocation of residual costs are required to align to the new efficient pricing Rules. Declining block tariffs are consistent with the efficient pricing requirements in the Rules at this time.

When considering how we redesign our tariffs, we have been particularly careful that our customers do not experience 'bill shock' by making sure that prices are fair and stable over time, and that any tariff increases are limited to forecast changes in the rate of inflation.

Ausgrid, Endeavour Energy and Essential Energy are also committed to providing customers with a choice of tariffs.

We now offer voluntary residential time of use tariffs, where customers are charged more for using electricity during peak times, and less for using electricity in off peak times.

We are only able to offer peak and off-peak tariffs to customers who have an interval meter installed on their properties.

So far time of use tariffs have had mixed results, possibly due to negative consumer perceptions shaped by government mandated roll outs of 'smart' meters in other states such as Victoria. Only 20 of Endeavour Energy's 865,000 customers have opted for voluntary time of use tariffs.

Across Ausgrid's network, there are about 427,000 residential and small-to-medium business customers on a network time of use tariff.

Over recent years there has been a small increase in the uptake of time of use tariffs across Ausgrid's network, largely in response to this tariff being mandated for solar customers.

In Essential Energy's network area, 20,000 customers have opted into voluntary time of use tariffs.

3. Our customers

The three NSW electricity businesses have the largest electricity distribution customer base in Australia and the most diverse range of customers, from households to small business, heavy industry and primary industries.

Ausgrid, Endeavour Energy and Essential Energy are focused on delivering safe, reliable and sustainable services to their customers, understanding their needs, and providing information to help them make choices. Providing clear, concise information to allow time-poor households to make informed decisions is a priority.

Electricity retailers play the major role providing this information through electricity contracts and billing. The retailers also determine the final tariff structures for customers, so they can fundamentally change any price signal that a distributor business might want to send to customers. Distribution businesses play a secondary role providing information to customers. Despite this, over the past few years each NSW distribution business has developed comprehensive engagement programs that provide important insights into customer needs and preferences.

Customers in NSW have told us (in diverse forums) that their key priorities are:

- electricity pricing and affordability;
- reliability; and
- safety.

Our research told us that predictable, stable and affordable bills are priorities for residential customers as they manage household budgets.

Residential customers also value simplicity, and generally do not understand the complexity of electricity pricing and tariff structures.

They do, however, expect network businesses to anticipate their needs, and to manage their businesses efficiently to keep electricity affordable.

Electricity consumers have also been recently canvassed by a range of research groups to capture and understand their insights and views about the electricity industry, and specifically about electricity tariffs.

Energy Consumers Australia, a national body representing electricity customers, commissioned the CSIRO to carry out research on attitudes to various tariffs. The resulting paper, Australian Consumers' Likely Response to Cost Reflective Electricity Pricing (June, 2015) has some key insights about customers.

According to the research, consumers see cost-reflective tariffs as complex pricing structures, and

> *"consumers find all forms of cost reflective pricing significantly less attractive than traditional flat rates tariffs".*
>
> *"...consistent with well-known biases against complexity, novelty and risk, and the pervasive human preference for simplicity familiarity and certainty, it appears that Australian consumers generally prefer flat rate tariffs to all forms of cost reflective pricing."*
>
> Source: Australian Consumers' Likely Response to Cost Reflective Electricity Pricing – CSIRO, June 2015

In January 2015, Ausgrid, Endeavour Energy and Essential Energy engaged IPSOS to conduct research into NSW customers' preferences. It found that:

> *"The choice experiment used to investigate customers' willingness to pay for network services revealed that while price is a driver of participants' selection of potential service offerings, the majority of customers are not prepared to sacrifice reliability and safety for lower charges.".*
>
> Source: Willingness to Pay for Network Services – IPSOS, January 2015

Ausgrid, Endeavour Energy & Essential Energy have also held roundtables and workshops with customer representatives, which have provided insights that certainty about billing, and stability of electricity services, are key priorities for most customers.

3.1 Talking and listening to customers about tariffs

We want your feedback on these issues to help us decide the future path of our tariff structures. Your views will inform the design of our upcoming TSSs, and importantly, will also help guide our longer-term decisions about electricity tariffs.

We value your feedback on our plans, and we are committed to listening and acknowledging the diversity of views on pricing and tariffs. We want to understand your ideas so we can consider how they align with our approach, and with the rules and regulations we must follow. There are seven specific areas that can be addressed as part of our consideration on tariffs.

3.1.1 Social tariffs

Social tariffs are formulated to help vulnerable customers with limited budgets afford electricity services. These tariffs should be considered in conjunction with the range of NSW Government electricity rebates available to NSW customers including:

Type of rebate	Designed to help
Low income household rebate	Eligible NSW householders to pay their energy bills
Family energy rebate	NSW families with dependent children to cover the cost of their energy bills
Life support rebate equipment at home	People to pay for their electricity bills if they are required to use energy intensive equipment at home
Medical energy rebate	For customers who have an inability to self-regulate body temperature when ex posed to temperature extremes
Energy accounts payment assistance	For people experiencing short term financial crisis or emergency to pay an energy bill

An options paper on Supporting Vulnerable Customers, prepared by economics firm HoustonKemp for the Energy Networks Association, described social tariffs as a

> *"tariff arrangement that contains terms, conditions, and charges designed to assist or benefit a defined group or groups of disadvantaged users or persons (i.e, it has a social purpose)."*

HoustonKemp noted that:

> *"It was the view of a number of parties we spoke with that a social tariff may help prevent many vulnerable customers from incurring high debt and having to go on to retailer hardship programs. This extends to concessions whereby the imposition of a social tariff would likely lighten the load on concessions."*

The options paper noted also that a social tariff could be counterproductive by discouraging retailers from competing for these customers.

> *"Tariffs themselves are also considered a fairly broad instrument to provide assistance to vulnerable customers and may not accurately address the problem. For example, social tariffs may be designed to assist vulnerable customers with low consumption but may inadvertently provide discounts to many customers who are not vulnerable, and miss many who are."*

Source: Houston Kemp Options Paper: Supporting Vulnerable Customers

e) How should social tariffs be structured, who should be eligible and how should eligibility be assessed?

f) Would social tariffs be an effective tool to support vulnerable customers?

g) Who do you believe is the best placed body to provide a social tariff?

h) Should all customers pay a small amount to provide assistance to vulnerable customers?

3.1.2 Network tariffs for customers who generate electricity

Currently the networks provide a single service allowing customers to receive electricity for consumption and generate electricity to export to the grid. All customers connected to the distribution network consume and generate electricity if they choose to invest in generating assets.

A customers' connection to the network is based on their expected capacity requirements. This capacity could be a maximum capacity to transfer electricity into the grid or take electricity from the grid. Enhancing this capacity drives our costs up, particularly when we need to invest in our network to facilitate customers' peak demands.

Our network tariffs are based on the combined costs of providing the capacity for this single service with no differentiation in our charges to reflect any difference in costs imposed on the network between customers who generate electricity and those that do not.

We are interested in stakeholders' views on whether they believe there should be separate network charges for customers who have the ability to use power from the network and also have the ability to feed surplus power back into the grid.

An export generation tariff for network usage could be technology neutral, and could be charged to residential or small business customers who export electricity to the grid to reflect the costs imposed on the network. This could include householders with photovoltaic solar panels, battery storage, or electric vehicles.

i) Should we consider a tariff and/or charge for recovery of network costs for customers that export electricity to the grid for other customers' consumption? Should a charge be technology neutral?

3.1.3 Declining block tariff

Today, declining block tariffs are used as the primary tariff across our three businesses. With this tariff, the first block of energy costs more than electricity used in subsequent blocks of electricity.

This tariff has been implemented to provide customers with predictable, stable pricing, and to avoid bill shock. Because our regulator caps the total revenue we can collect from customers each year, it is in consumers' best interests to maintain utilisation of the network to maintain stable prices. Under capped revenue regulation, increasing electricity consumption reduces network charges and declining network consumption increases network charges.

With an inclining block tariff, the first block of energy used attracts a lower charge, and there are higher costs when more energy is used in subsequent blocks. Without the necessary 'smart' meters in NSW, most customers do not know when these increases occur.

j) Given the predominance of basic meters across the networks and the Rule requirement for efficient pricing, how supportive are you of declining block tariffs?

k) Are declining block tariffs more effective in preventing "bill shock" while providing flexibility to reduce bills compared to other alternatives?

3.1.4 Transitioning to tariffs that promote more efficient outcomes

New regulations require that electricity distributors must consider the customer impact of changes in tariffs. Distributors may vary tariffs, including from those that comply with "efficient" pricing principles after a reasonable period of transition.

We are interested in customers' views about what is an appropriate transition period, if the obligation to move to more efficient tariffs (based on LMRCS and the application of residual costs to minimise pricing distortions) results in changes to existing tariffs. Customers should be aware that an immediate transition may create "winners" and "losers" in that some customers' bills would decrease and others would increase.

A staged introduction of declining block tariffs commenced in July 2014 and continued in July 2015.

l) If transitioning to more efficient tariffs over time results in "winners and losers", over what period should any transition occur?

m) Would customers support a cap on necessary increases limited to no more than CPI as a way of lessening any price shock to customers?

3.1.5 Regional pricing

Different geographic areas, climatic regions, transmission connection points or areas of network congestion in NSW, could attract location-specific tariffs for residential customers to address local issues. A location-specific tariff could be used to reflect higher or lower costs or big swings in low and high demand in a particular area. These types of tariffs could result in neighbours paying different rates for their electricity.

n) Would location-based tariffs for in the same distribution network areas be acceptable?

o) What situations would they be applied?

p) Would customers be prepared to pay for the higher administration cost of this structure?

3.1.6 Demand tariff

Demand tariffs are commonplace for large businesses, and allow actual demand to be reflected in the price the business pays for their use of our network capacity.

The highest demand electricity meter reading for a particular time (usually monthly) is used to calculate the electricity bill. This is because that point of demand tells us how much network capacity we need to reliably service that customer, and this in turn helps reflect our investment costs.

We are interested in customer and stakeholder views on whether demand tariffs may also be appropriate for residential and small business customers.

To make this tariff available, properties would need to be fitted with an interval or smart meter. There would also need to be changes in billing systems, resulting in additional costs.

Based on forecasts of relatively flat demand for growth in peak electricity consumption in NSW, and a view that a demand tariff may not lead to less money being invested to maintain the NSW electricity distribution network, we are interested in customers' feedback on whether future residential tariffs should include a demand charge component.

q) Should customers be charged for service based on their usage at peak times? How could a demand charge be structured?

r) Who should pay for the costs of metering if an interval or smart meter is required?

s) With loads flattening in NSW, will a demand tariff likely lead to lower future network costs?

t) If there is interest in a demand tariff, over what period of time should the businesses transition to this tariff structure?

3.1.7 Time of use tariff

Ausgrid, Endeavour Energy and Essential Energy offer residential customers a declining block tariff as the primary network tariff, with a choice to "opt in" to a voluntary time of use tariff. There has been a low take up and indeed, recent interest in, time of use tariffs by customers in many parts of NSW.

w) What do customers think of time of use tariffs?

v) Why do you think the take up of this tariff in NSW is so low?

w) Are there other voluntary tariffs of interest to customers?

3.1.8 Food and fibre tariff

Some primary producers in NSW have proposed a 'food and fibre' tariff for agricultural businesses that typically only place demand on the electricity network for short periods during the year. A purely efficient tariff for these customers based on demand is likely to result in high charges when demand occurs at peak times.

We are interested in customer views on whether a specific tariff for these customer groups is appropriate, and if so, how the tariff should be structured.

x) What do you think of a specific tariff for these groups?

y) Should such a tariff be set at an efficient level if it means higher charges at peak times?

3.1.9 Ancillary network services, setering services & street lighting

The Australian Energy Regulator has previously set price levels and structures for ancillary network services for metering services and street lighting. However, we remain interested in hearing community views about these services and pricing, including feedback from local government about street lighting pricing structures.

Insights from our stakeholder engagement around 2017 – 2019 tariff structures will help inform our future pricing strategies, and approach to how we consider tariffs for the next regulatory period.

z) What are the main issues you think we need to consider about Ancillary Network Service charges, metering charges and street lighting pricing structures?

4. Future tariff reform

4.1 Continuing the conversation on tariffs

Ausgrid, Endeavour Energy and Essential Energy are focused on listening to and acting on feedback from our customers about our services and we value this ongoing engagement. We are committed to talking to our communities as tariffs in NSW are reformed. We are also committed to keeping you updated during this process.

Your feedback, thoughts and ideas will be carefully considered as we develop Tariff Structure Statements and work towards longer-term tariff reform.

We thank you for the time you have invested in responding to the questions we raised in this paper and will respond to all submissions received. Please note that in the interests of transparency, all submissions will be regarded as public unless otherwise requested.

We invite you to respond to this issues paper until 9am Friday **30 October 2015.**
For information on how to respond go to
www.haveyoursay.nsw.gov.au

For further information, please contact:

Ausgrid
Matt McQuarrie
Manager Network Regulation
mmcquarrie@ausgrid.com.au

Endeavour Energy
Dan Bubb
Network Pricing Manager
daniel.bubb@endeavourenergy.com.au

Essential Energy
Catherine Waddell
Network Pricing Manager
Catherine.waddell@essentialenergy.com.au

Glossary of terms

Electricity tariff - An electricity tariff is the amount charged for providing energy under your electricity contract. It includes both fixed and variable charges.

Inclining block tariff – Different rates are charged for electricity use. The first part of the electricity is cheaper than all usage after it.

Declining block tariff - The first part of electricity use is more expensive than all usage after it.

Long run marginal cost - The long run marginal cost (LRMC) of an electricity network includes the cost (or savings) of expanding (shrinking) the network to match demand.

NUOS – Network use of system. A charge made up of transmission and distribution costs. Combined, these two costs make up about 50% of an average residential customers' electricity bill.

Network Tariff - A network tariff is the amount charged for providing network services and is charged to you via your electricity tariff in your energy contract with your retailer. It includes both fixed and variable charges.