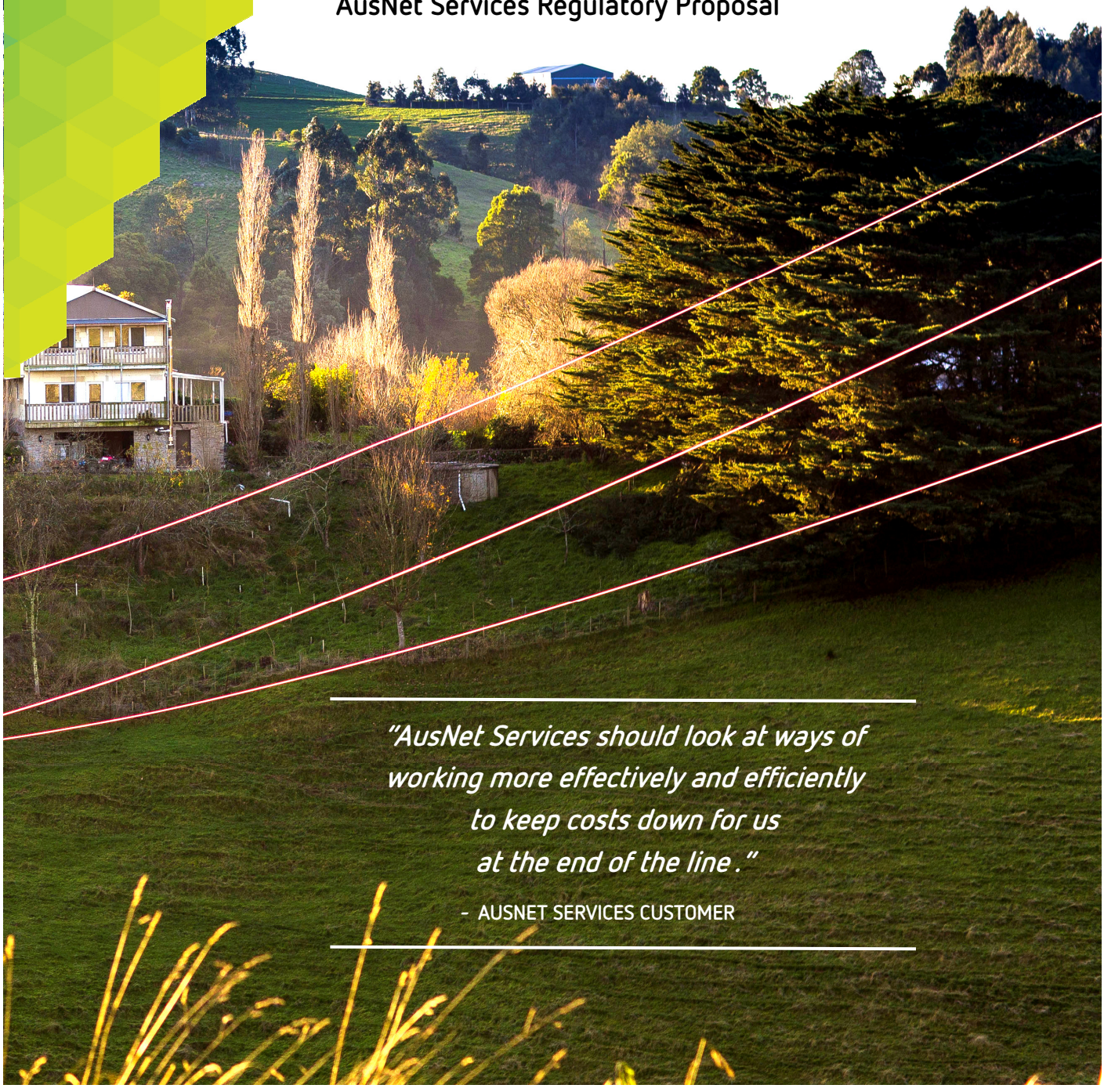
Customer Value.
Safety.
Innovation.

AN OVERVIEW OF OUR PLANS 2016 to 2020

AusNet Services Regulatory Proposal



"AusNet Services should look at ways of working more effectively and efficiently to keep costs down for us at the end of the line."

- AUSNET SERVICES CUSTOMER

Our role

is to deliver a safe, reliable, efficient energy supply to our customers.

Dear Customer,

I am pleased to share with you an overview of our five year electricity distribution plans, which we have themed *Customer Value*, *Safety* and *Innovation.*

The energy industry is undergoing a series of major changes, and we're pleased that your preferences and attitudes will play a critical role in the future of our business.

"In the face of changes that will have a profound impact on the future of businesses such as ours, we need to ensure our network services meet customer expectations."

Including customer views in our planning is vital. The energy industry is complex, and we're committed to making it easier for customers to get involved.

Therefore, as a business we need to get better at helping all our customers to understand us and the decisions we make on their behalf.

Publishing this document represents an important step towards meaningful customer engagement.

This document seeks to explain why our five year plans are centred on *delivering customer value*, *continuing to make our network safer* and *innovating to increase efficiency.*

It summarises a more detailed, technical proposal we have made to the Australian Energy Regulator (AER). You can access this proposal on our website (www.ausnetservices.com.au) or the AER's website (www.aer.gov.au).

We have written this document to give you the background you need to understand our plans. We hope you find it useful in building your understanding of AusNet Services Electricity Distribution business.

I would like to thank those customers and stakeholders who have been involved in the development of our five year plans. I look forward to hearing from you in future.

Nino Ficca

Managing Director
AusNet Services

Our plans

strike the right balance between customer priorities and our obligations.

Our aims

Running an electricity distribution network involves balancing a number of priorities and obligations.

The biggest challenge to have emerged in recent years is the need to minimise our impact on bills while meeting customer and community expectations regarding network safety.

Our future success depends on our ability to find the right balance between these priorities.

Our five year plans demonstrate how we aim to achieve this balance through continuing innovation and efficiency.

AIM 1 | Customer value

We will ensure that the component of customers' bills that covers network costs remains stable over the next five years, while maintaining reliability at the levels customers expect.

AIM 2 | Safety

We will continue investing to drive down the risk of fire and electric shock, to meet customer and community expectations of network safety.

AIM 3 | Innovation

We will improve efficiency by developing and adopting new solutions to make our network smarter and more cost effective.

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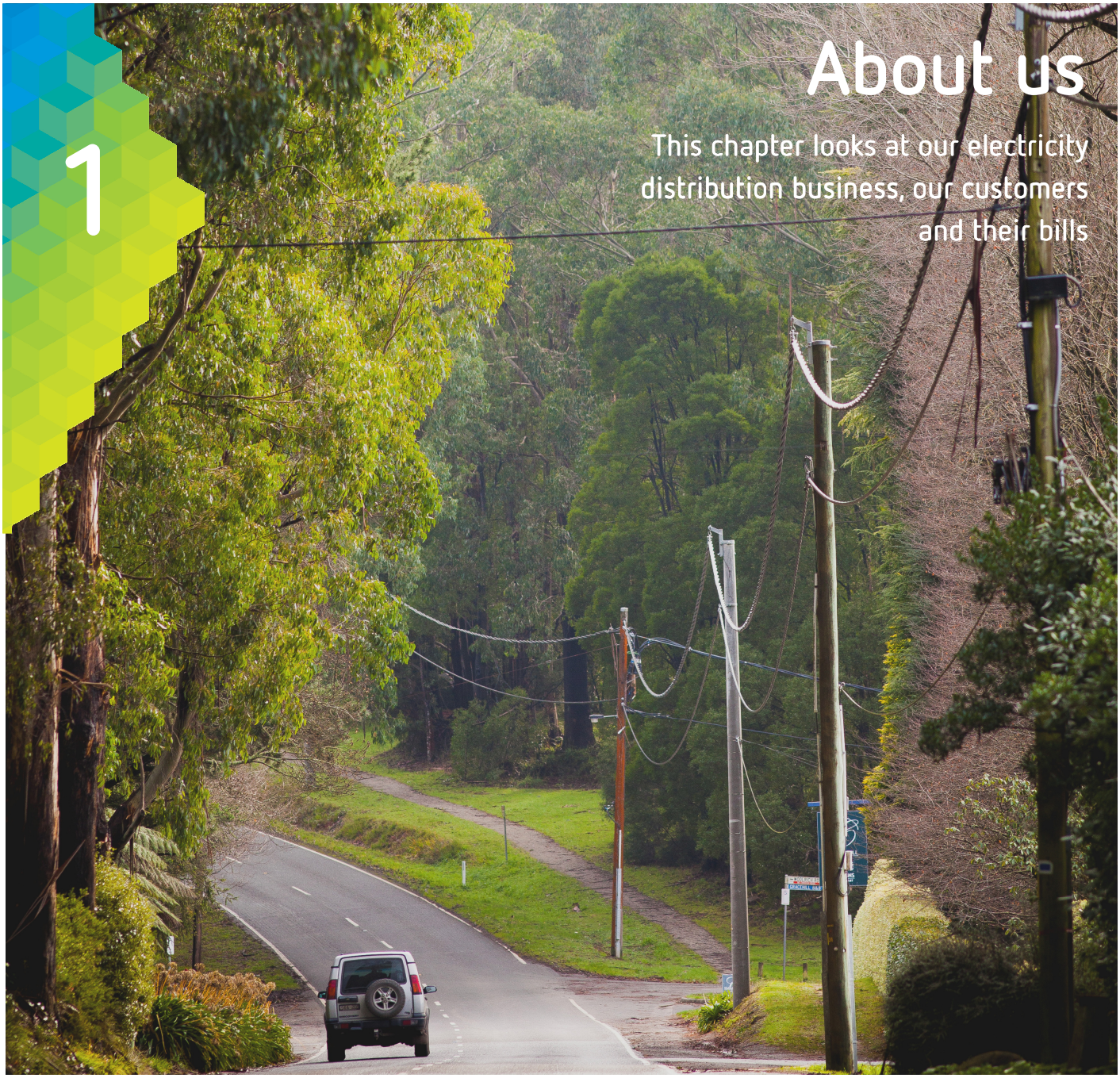


1 About us

This chapter looks at our electricity distribution business, our customers and their bills

CHAPTER OVERVIEW

"AusNet Services...you used to be SP AusNet. You're the company with the poles and wires"

- AUSNET SERVICES CUSTOMER

To understand AusNet Services' plans, it helps to understand our part in the energy supply chain.

Most of our customers think of us as a 'poles and wires' business. This is the most visible part of our electricity distribution network, and is the focus of this document.

This chapter is mostly devoted to explaining the coverage of our electricity distribution network, including the customers it serves and how they are charged for these services.

About us

AUSNET SERVICES ELECTRICITY DISTRIBUTION NETWORK

Our business

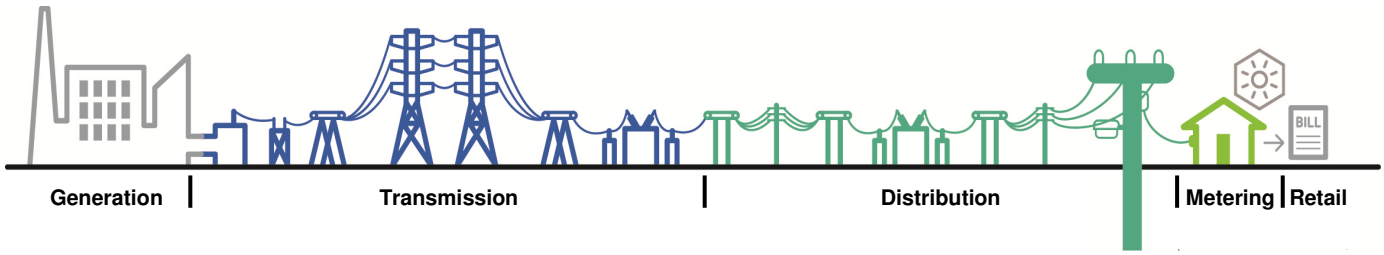
Many customers think of us as the company with the 'poles and wires' that bring power to their homes or businesses. While this is true, we are also Victoria's largest energy delivery service. We operate the state's high voltage transmission network, a low voltage electricity distribution network that covers eastern Victoria, and a gas distribution network. Our company was previously known as SP AusNet, but it began as part of the State Electricity Commission of Victoria (SECV) in 1921.

How our networks fit into your energy supply chain

The diagram below shows how our electricity distribution network forms part of an energy supply chain that begins with electricity generation. Energy moves through our high voltage transmission network, into the lower voltage distribution network, then via a meter at the customer's premises, into their home or business.

In a similar fashion, our gas distribution network carries natural gas from high pressure sources to the gas meters at our customers' premises.

i. AusNet Services' role in the electricity supply chain

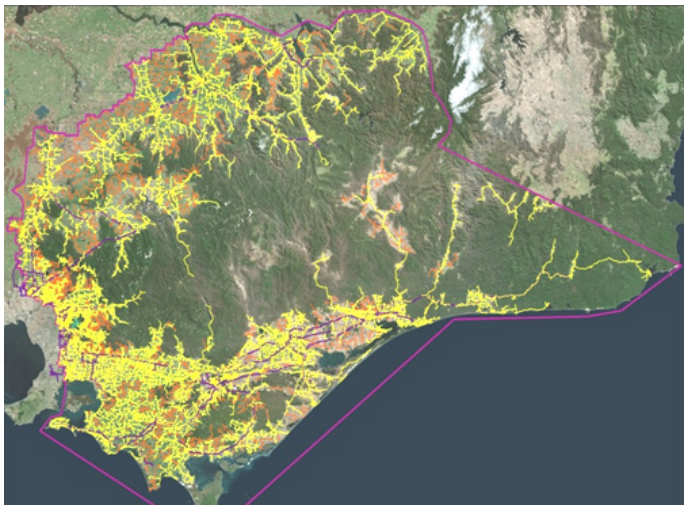


Our electricity distribution network

AusNet Services' electricity distribution network carries electricity to approximately 680,000 customers across eastern Victoria. This network is large and complex, consisting of around 50,000 kilometres of powerlines, more than 370,000 powerpoles, control systems and meters. Maintaining a network of this scale requires considerable expertise and investment.

If you have visited areas such as the Yarra Valley on Melbourne's eastern fringe, the forests of the Dandenong ranges, the rugged Victorian High Country, the Murray River around Corowa, or the remote coastal environments of Wilsons Promontory or Mallacoota in East Gippsland, you will have travelled through areas serviced by our distribution network.

This predominantly rural network spans an area of 80,000 square kilometres of unique and diverse terrain, from Melbourne's populated eastern urban fringe, through steep, heavily treed mountainous regions and harsh coastal environments.



As well as challenging physical environments, this area includes some of Australia's most bushfire-prone regions. The map above shows the parts of Victoria that are serviced by our electricity distribution network.

About us

OUR CUSTOMERS

Who are our customers?

Our customers are spread across urban and rural Victoria. We supply energy for residences, small and large businesses, hospitals, schools and agriculture.

We also manage the flow of energy back into our network from sources such as our customers' solar power systems.

Most of our customers are residential households, rather than industrial or commercial. Among Australian electricity distributors, AusNet Services has one of the highest proportions of residential customers.

Residential customers use less energy than commercial or industrial customers, so the volume of energy we deliver per customer is the lowest in Australia's national electricity market (NEM).

Most of our customers are concentrated in outer metropolitan Melbourne, or in regional centres and towns.

While AusNet Services' industrial customer base includes a manufacturing sector, the high Australian dollar and other economic conditions have led to lower energy demand from this sector.

How does our customer base affect our network?

Our residential customers use electricity differently to commercial or industrial customers, and this has particular impacts on our network.

Our customers' annual network energy use is falling, as energy efficient housing and appliances, price awareness and solar power reduce their use of electricity that is supplied through our network.

While overall electricity use is falling, short times of very high demand still occur on our network. These demand peaks are largely caused by the increasing use of residential air-conditioning on hot summer evenings.

While the use of residential solar power has reduced overall network electricity use, it does not reduce network peak demand, which normally occurs around 6:00-6:30pm. By this time of day, solar power systems generate very little electricity.

How might our customers encounter us?

There are a number of ways in which customers may have experienced our service or encountered our people.

They may have seen our lineworkers in elevated buckets, maintaining or repairing powerlines; our inspectors photographing a power pole with a camera mounted on a 4WD; a drone or helicopter, conducting aerial photography; or an inspector drilling into a pole to check the condition of the wood.

If a customer's lights flicker momentarily, it may be due to our network's smart technology kicking in to restore the flow of energy.

Other customers may only become aware of AusNet Services when we have had to interrupt their electricity supply for planned work. These interruptions are necessary for network maintenance or upgrade work.

Many customers may not have heard from AusNet Services. Yet they still benefit from our energy delivery service. Whether they're aware of us or not, we're working around the clock to keep things running smoothly.

Given the scale, complexity and location of our network, keeping a safe, reliable supply of energy flowing to customers requires an extensive program of work in any given year.

About us

OUR NETWORK CHARGES

How do our charges impact on customer bills?

To recover the costs of operating and maintaining our network to provide a safe, efficient and reliable energy supply, we charge our customers a *network tariff*. All network tariffs must be approved by the AER.

Network tariffs are included in the bill that customers receive from their electricity retailer. They form part, but not all, of the network service charge and they are not shown separately on the bill.

In the pie chart shown below, 34 per cent of a typical household's electricity bill pays for electricity distribution. This includes the cost of building, operating and maintaining the distribution network that delivers electricity, as well as costs related to metering.

The other charges shown in the bill breakdown are:

1. Generation and retail

i) *Generation* is the cost of production of electricity, from coal fired power stations, wind farms and so forth.

ii*) Retail* is the of electricity to customers. It includes processing bills, marketing and so forth.

2. Transmission

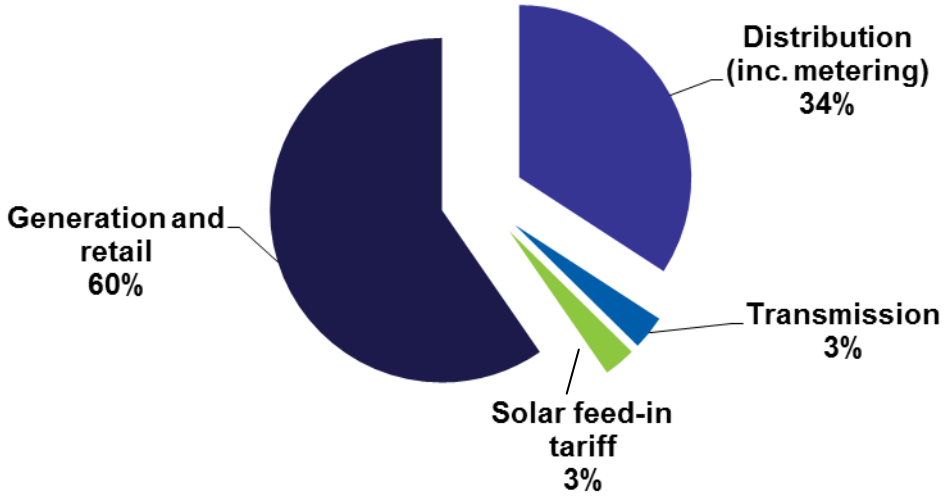
The high voltage network that carries electricity from large generation sources to the distribution network.

3. Solar feed-in tariff

The payment to solar customers for the electricity they sell back to the grid.

What proportion of a bill covers electricity distribution?

Breakdown of a typical residential customer's bill, 2014



Determining how much we can charge our customers

As a regulated energy business, the price charged by AusNet Services is determined by an independent body called the Australian Energy Regulator (AER) through a process called a 'revenue reset'.

Every five years, AusNet Services submits a proposal to the AER. This proposal contains our plans for the coming five year period, and the revenue we require to carry out these plans. The AER considers our proposal, then determines our revenue for the period.

This decision, also known as a regulatory determination, establishes how much we can charge customers for our electricity distribution services.

KEY POINTS FROM THIS CHAPTER

- *Our network covers difficult and bushfire-prone terrain, which presents unique challenges.*
- *Our distribution network charges account for around one-third of a typical residential bill.*
- *The AER determines how much we can charge customers.*

2 Drivers shaping our plans

This chapter explains the major factors influencing our five-year plans.

CHAPTER OVERVIEW

"When it comes to safety...to bushfires, AusNet Services should not take any risks."

- AUSNET SERVICES CUSTOMER

While many factors have influenced our plans, they have been shaped by three major drivers.

1. *External events. During the 2011-2015 period, a series of unprecedented external changes deeply affected our industry.*
2. *Customer engagement. Customer preferences and priorities gathered during our engagement program.*

What drivers have shaped our plans?

EXTERNAL EVENTS | Changing customer behaviour

Customers are using less energy

After rising steadily over the past 40 years, a dramatic fall in energy use occurred during the 2011-2015 period, which was not predicted and the turning point was almost immediately following the last regulatory determination in 2010.

Declining energy use is due to conditions that include slower economic growth, improved energy efficiency, a customers' response to prices and the uptake of renewables such as solar generation options.

Relatively mild weather, including the breaking of the drought in 2010 also contributed to declining energy use.

Unlike many other distributors, peak demand has continued to grow on AusNet Services' network, (although more slowly than in the past).

As peak demand continues to rise, we upgrade our network to meet this extra demand, and these costs are ultimately met by our customers.

Meanwhile, falling energy use places upward pressure on prices for customers. The reason is that a significant portion of our tariffs reflect the fixed costs of building and operating our network. These fixed costs are recovered based on the total volume of energy used.

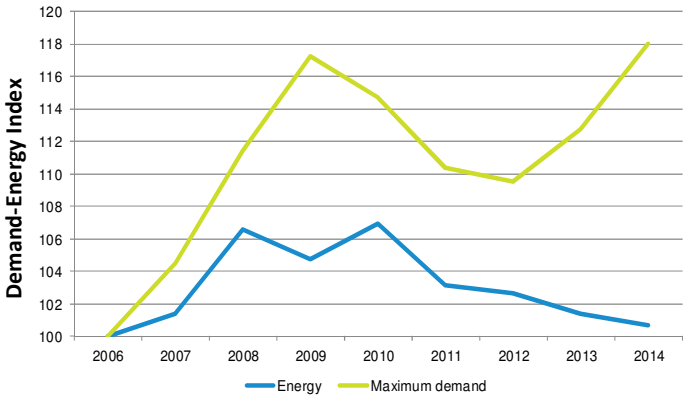
When this use declines, even with prudent cost management, we would need to charge more per unit of energy to recover the same costs.

For AusNet Services, continuing to address the combined challenge of reduced energy use and increased peak demand on customer bills remains a priority over the next five years.

As a result, our plans include innovative ways to meet peak demand and operate our network more efficiently.

Energy use is falling, but peak demand continues to increase

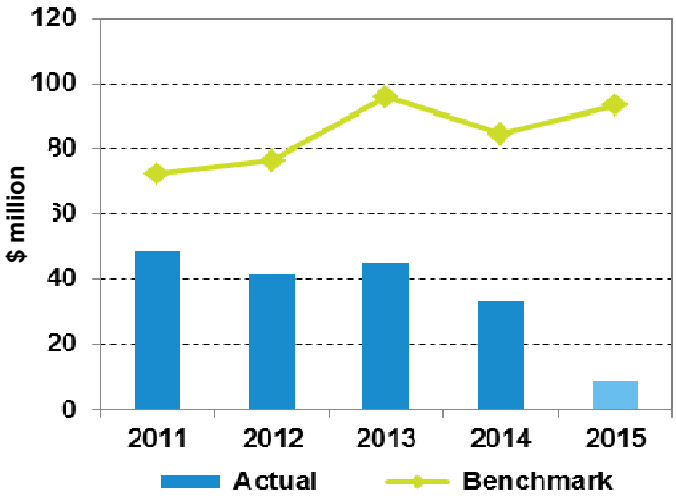
Electricity consumption and peak network demand: 2006-2014



This graph shows that while energy consumption is falling, network demand during peak periods continues to rise, largely due to the growth in residential air conditioner use. This peak demand is a major driver of investment in network capacity.

We reduced investment in response to falling energy consumption

Actual and benchmark allowance for investment in network growth: 2011-2015



This graph shows how lower energy use reduced investment in network growth during 2011-2015 to well below the forecast amount.

What drivers have shaped our plans?

EXTERNAL EVENTS | Increased safety expectations

Safety investment has risen a lot

Since 2009, a lot more money has been invested to make our network safer.

In the period since the 2009 Black Saturday bushfires, the Powerline Bushfire Safety Taskforce, (comprised of the State Government, the safety regulator Electricity Safe Victoria (ESV) and energy industry representatives), has reassessed the risks and consequences of fires associated with electricity networks. This work builds on the recommendations of the Victorian Bushfire Royal Commission.

The recommendations included:

- Replacement of high voltage powerlines and installation of new technologies to reduce the risk of failure in areas of high bushfire risk.
- Increased asset inspection frequency and training approval from a registered authority.
- The removal of hazardous trees from beyond the prescribed vegetation clearance space.
- Increased sensitivity and control of protection systems on days of high risk, such as Code Red or Total Fire Ban.
- Installation of vibration dampeners and armour rods on overhead high voltage bare conductor powerlines.

Safety expenditure has increased prices

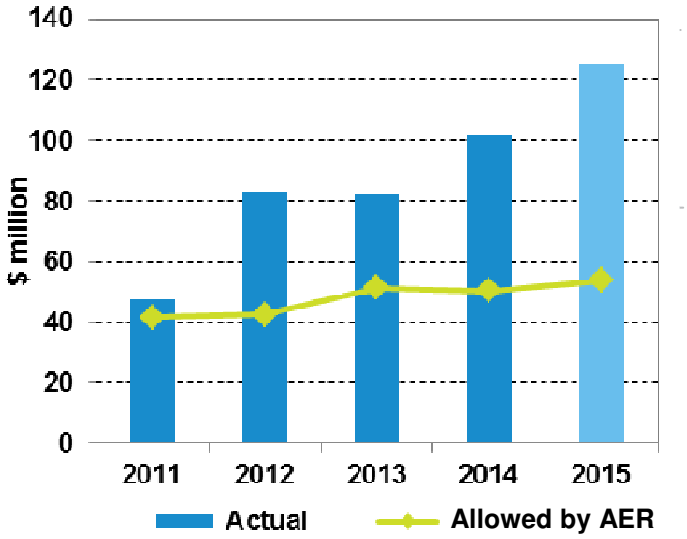
During the current five year regulatory period, AusNet Services began implementing the Powerline Bushfire Safety Taskforce recommendations. To meet the considerable additional costs associated with this work, the AER approved a pass through application by AusNet Services. This means the additional costs could be added to our customers' bills.

AusNet Services also accelerated several replacement programs with the endorsement of the ESV, where we have identified further significant safety benefits. By accelerating these programs, we brought forward the costs associated with them.

As a result of these enhanced safety programs, safety costs have risen rapidly over the last five years. As a result, safety costs have been a significant contributor to price rises over the last five years.

Safety expenditure was well above the allowed benchmark

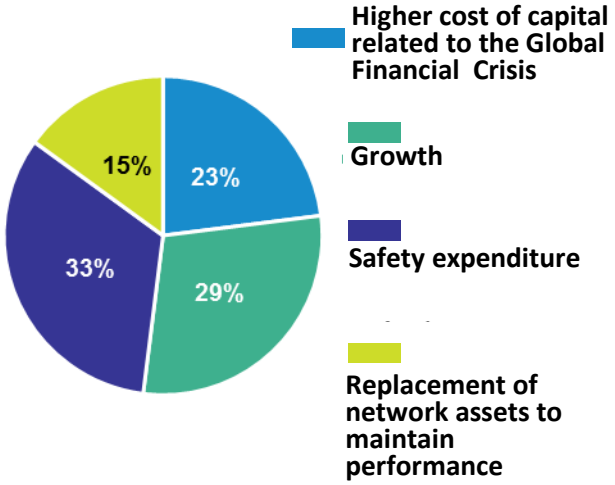
Actual and AER allowance for safety expenditure: 2011-2015



The graph above shows how our five-year safety expenditure increased to around double the benchmarked level by 2015.

Safety represents the largest component of our charges to customers

Breakdown of AusNet Services charges to customers: 2011-2015



The pie chart above shows that safety represents 33% of our network charges. This equates to around 11 per cent of the average residential electricity bill.

What drivers have shaped our plans?

EXTERNAL EVENTS | Solar and new technology

Solar power is having an impact on our network

Energy supply and transport are being transformed by technology. In particular, the uptake of solar and increased residential solar capacity are having a significant, ongoing impact on our network.

Currently, around 12 per cent of our customers have solar panels installed, which meets around five per cent of residential energy consumption. By 2019, we forecast that around 20 per cent of our customers will have solar.

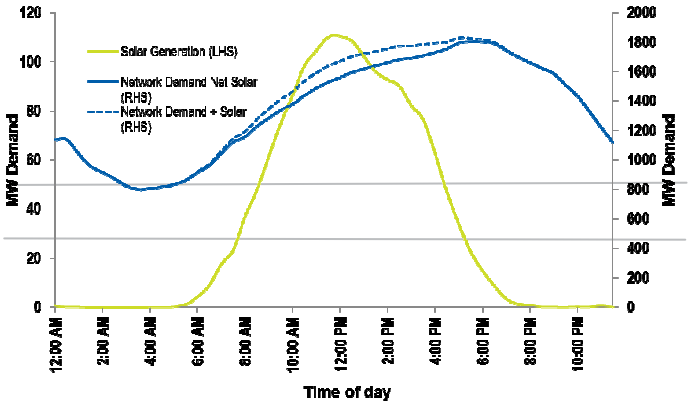
Increased solar means we must manage an increase in two-way energy flows in a network that was originally designed for one-way flow.

However, residential solar power does not alleviate peak demand, which is a driver of costly network upgrades.

This is because residential solar power systems generate most energy around midday, whereas peak demand on our network occurs in the evening. During the peak demand period, customers with solar power are using network energy.

Solar generation does not alleviate peak demand

Solar generation versus network peak demand



This graph shows the misalignment of peak network demand and peak residential solar output. Solar power installations generate the most energy around midday, whereas peak demand on our network occurs in the evening.

Other technologies present challenges and opportunities

Some technology represents both long term challenges and opportunities for the electricity distribution network.

As the cost of small scale generation and storage is expected to fall, some customers may choose to disconnect from the grid. With fewer customers, each remaining customer would then be required to meet a larger share of network costs and the resulting price increases could drive more customers off the grid.

But equally, technological development such as solar and battery storage could provide a number of opportunities. For example, the could represent alternative solutions to more expensive network upgrades. The network also has a role to play in balancing supply and demand from customers who wish to sell excess energy.

The emergence of new technology poses a greater challenge to our business of constraining future price growth, in order to continue providing value to customers.

What drivers have shaped our plans?

CUSTOMER ENGAGEMENT

The growing importance of customer engagement

Traditionally, distribution businesses would demonstrate that customer needs were being served by meeting certain network performance measures.

What has emerged in recent years is a growing need for distribution businesses to build direct relationships with end-user customers, rather than relying on other parties, such as retailers, to manage these relationships.

This has been largely driven by the external factors discussed in the previous section, and compounded by growing customer dissatisfaction, particularly due to rising bills. Collectively, this creates an uncertain future for our business.

AusNet Services recognises that to be sustainable as a business, we need to undertake broader customer engagement. This will enable the business to understand customer views and concerns, and to develop plans that address them.

Since 2013, AusNet Services has significantly increased the level and extent of customer engagement undertaken as part of, and beyond, the review process.

Engaging with our customers

As part of our electricity distribution planning process, AusNet Services undertook a four-stage customer engagement program that consisted of *Research and Analysis*, *Initial Consultation*, *In-Depth Consultation* and *Response to Feedback*.

The diagram below shows the stages of this program and the activities involved in each stage. These activities included *customer surveys, community forums, technical workshops and focus groups.*

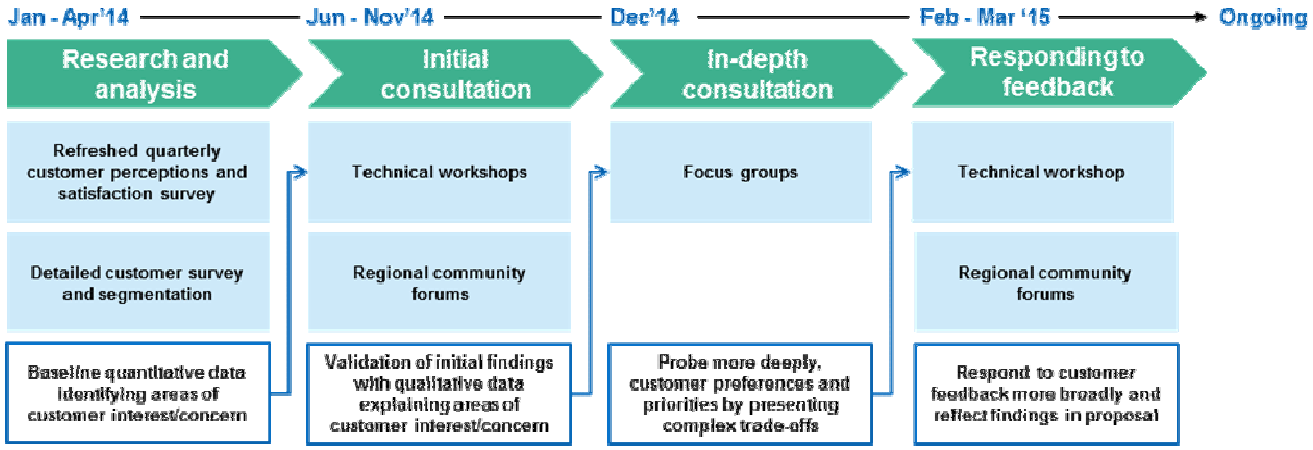
During the program, we sought customer views on various aspects of network investment, as well as views on the trade-offs that exist between investment and outcomes related to reliability, safety and operating costs.

These activities were helpful in illuminating customer attitudes to AusNet Services' chosen investment approaches and forecasts. Where appropriate, the proposal was modified in response.

Beyond informing our plans, this customer engagement program has identified many opportunity for engagement across our business.

Since the conclusion of the program, we have begun establishing broad-based customer engagement as an ongoing part of our business.

Overview of customer engagement program



What drivers have shaped our plans?

CUSTOMER ENGAGEMENT

Findings from engagement activities

Following is a summary of the four phases of our customer engagement program.

The *Research and Analysis phase highlighted the following: (i)* general lack of awareness about AusNet Services; and (ii) four areas of customer interest or concern. These were energy forecasting and tariffs; network safety and bushfire management; reliability and planned outages; and demand management and alternative technologies.

The findings from the research and analysis phase informed the planning of our *Initial Consultation* phase, which was based on a mix of community forums and technical workshops.

The community forums allowed any customer to discuss the aspects of electricity that mattered to them. The technical workshops addressed specific aspects of electricity distribution in more detail, and were intended for specialised audiences such as industry, environmental and advocacy groups representing vulnerable and disadvantaged customers.

This phase helped to build relationships and identify ways to improve customer engagement.

It also defined the discussion areas for the next phase, *In Depth Consultation*, which consisted of a series of eight focus groups. The aim of this phase was to explore customer preferences and priorities in more detail.

Five consistent customer expectations emerged from the in depth consultation phase. These expectations were used to confirm or question our initial five-year plans.

Our customers expected:

i. A reliable, uninterrupted supply of electricity to all customers

ii. No network related fire or safety issues

iii. Minimum bill increases

iv. Efficient, well planned investment and expenditure

v. Proactive, responsive network planning

The final phase, *Responding to Feedback*, involved follow-up community forums and technical workshops. In these sessions, we presented our five-year plans and responded to the customer information needs that had become evident during the program.

The feedback we collected from these sessions showed a high level of customer interest in subjects such as solar and battery storage. It also indicated a need for more information about smart meters, tariffs and costs.

Overall, participants were satisfied with the effectiveness of the forums in building relationships with customers, and raising awareness of AusNet Services. However, participants were less satisfied with the effectiveness of these forums in explaining complex information and seeking detailed feedback.

These findings identified a need to find more effective ways to meaningfully involve our customers in future network planning activities.

What drivers have shaped our plans?

CUSTOMER ENGAGEMENT

Our five year plans reflect customer attitudes, priorities and preferences

The customer feedback we received from our engagement activities was categorised into four broad themes: *Prices, Safety, Reliability and Innovation/ Efficiency.*

Following is a summary of how we have incorporated these themes into our plans for 2016-2020.

PRICE

It was clear that households and small businesses were concerned about rising energy costs over the previous five years. Our customers believe that networks have a responsibility to manage long term costs to avoid the need for large, short-term price rises.

With respect to the recovery of revenue, customers were opposed to both fixed charges (which they associated with a loss of control over their bill) and locational prices (they felt that these penalised people for decisions they couldn't easily change). Locational pricing was seen as strongly linked to safety costs - an aspect that they saw as benefitting all Victorians.

In developing our proposal, we have adopted a range of measures to deliver sustainable long term network prices. .

RELIABILITY

Customers expressed a strong preference for continuing current reliability levels and this was common across different customer groups. There was a strong resistance to either paying more for further reliability improvements, or allowing reliability to decline in return for lower future prices.

Our proposal acknowledges this feedback, and reflects the results of an extensive, independent study of the value of energy reliability. The expenditure we propose is expected to lead to a slightly lower level of reliability (three minutes per annum for the average customer).

We believe that, for the majority of customers, there will be no discernible difference in the level of service.

SAFETY

The safe operation of our network was considered non-negotiable. Customers were very supportive of investment that improved community safety, particularly where it reduced the risk of fire ignition from electricity assets. They also strongly supported the proposed continued investment in safety improvements. This support remained, even when presented with the higher costs of proposed programs.

AusNet Services has proposed an expenditure that aims to reduce the risk of bushfires and electric shocks arising from our assets.

INNOVATION/EFFICIENCY

There was general support for continued investment in innovation as opposed to large network investments, particularly where innovation led to lower long term costs or higher community benefits such as improved safety or reliability.

Generally, AusNet Services has been careful to seek upfront customer funding for innovation only where it supports the maintenance of existing platforms and capability. We are proposing to expand the allowance for investment in longer term research, where there is potential for significant long term benefits to our customers and the community.

What drivers have shaped our plans?

NETWORK CHARACTERISTICS

Two physical characteristics of our network influence our future plans

The first is *where* our network is located. The second is the *age and condition* of the network.

Network geography

Our network is made up of 50 thousand kilometres of electricity powerlines. These powerlines are mostly overhead lines in rural areas. They were first built in the 1950s.

Our network covers an area that is split by the Great Dividing Range. It runs through heavily forested and mountainous areas, as well as the low lying and coastal regions of Gippsland.

On the eastern fringes of Melbourne, this network services highly populated suburbs including those around the Dandenong Ranges.

The environment of eastern Victoria presents unique challenges for operating an electricity network, the most significant of which is managing the risk of bushfires.

Eastern Victoria is subject to a combination of climate, terrain and vegetation that makes it extremely prone to bushfires. Further, substantial communities have settled in these high risk areas.

This combination of high bushfire risk environments and relatively large populations makes eastern Victoria one of world's worst areas for bushfires, in terms of the potential for catastrophic losses to life and property.

Age and condition of network assets

Another aspect of our network that has influenced our plans is the age and condition of various network components such as power poles, powerlines and insulators. We refer to these components collectively as *network assets*.

Currently, many of these assets are 50 to 60 years old and reaching the end of their useful life. This has driven an increasing number of asset replacement programs, particularly in high bushfire risk areas.

Despite our replacement programs, the average age of many types of assets is increasing, meaning further replacement programs are necessary. For example, powerpole replacement has increased markedly during 2011-2015, and this represented a considerable proportion of our asset replacement costs.

Yet, despite this work, more replacement is necessary to manage the condition of our assets.

KEY POINTS FROM THIS CHAPTER

- *Conflicting pressures exist to minimise costs and improve safety.*
- *To develop plans that address customer views, AusNet Services must directly and consistently engage with its customers.*
- *To be sustainable, AusNet Services must stabilise prices and network investment in the face of evolving customer behaviour and emerging technologies.*
- *The investment required to reduce bushfire risk and replace deteriorating assets limit AusNet Services' ability to deliver price relief.*

3 Our plans for 2016-2020

This chapter describes how our five-year plans will meet our aims..

CHAPTER OVERVIEW

"We can't keep paying these high bills."

- AUSNET SERVICES CUSTOMER

This chapter expresses our five year plans in two ways.

Firstly, we describe our aims to deliver the things that matter to our customers. We then detail how we intend to achieve these aims , including the revenue we propose to fund them, and the expenditure we propose to deliver them. This is a view of our plans based on our aims.

Secondly, we explain how, as a regulated monopoly our revenue requirements and expenditure proposals are determined. This is a view of our plans based on our regulatory proposal.

This is a technical and complex process, as detailed in our proposal to the AER. Nonetheless, we have endeavoured to summarise this process. We believe this will help the reader to understand the robust and rigorous process that is applied in developing plans such as these.

Our plans for 2016-2020

OUR AIMS | Benefits to customers

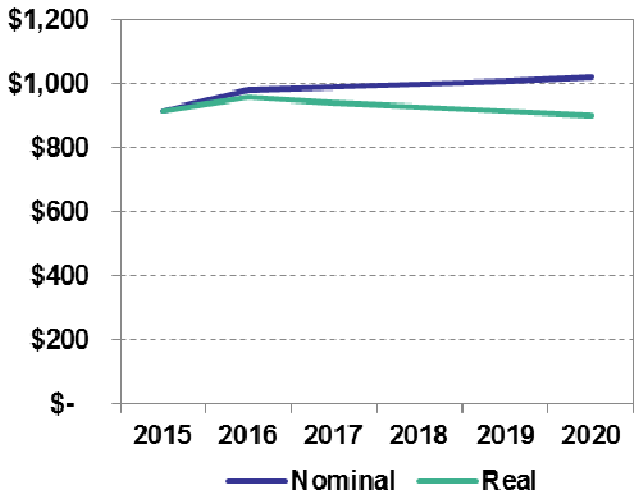
Delivering customer value: minimising price increases

Our charges to customers will remain stable. This means the part of their bill that covers network costs will be effectively unchanged for the coming five year period.

The graph (right) shows that the amount we charge our average customer will only increase slightly each year, by 0.4 per cent (in nominal terms, which includes inflation). In real terms, (excluding inflation), the impact to customers is a decrease in our network charges of over 2 per cent each year, inclusive of metering. We aim to keep prices stable, while maintaining reliability.

This is equivalent to an annual saving of $90 for customers on a typical residential bill.

Average network charge per residential customer

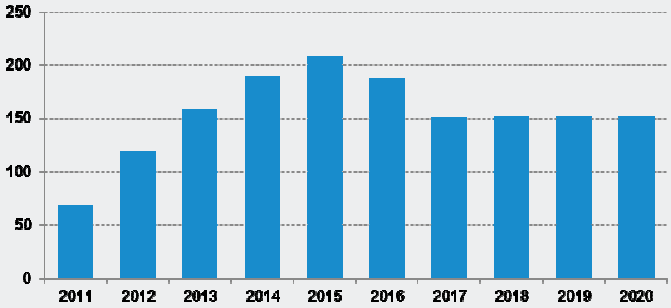


Improving network safety: reducing risk of fires and electric shocks

In 2016-2020, we will continue to invest a significant amount of the revenue we receive to ensure we meet safety expectations. Minimising bushfire and electric shock risk, and working toward a zero injury workplace are major objectives over the coming five year period.

The graph (right) shows the proposed annual investment in safety. It can be seen that this investment will flatten from 2017 to 2020. We predict that by 2020, we will have further reduced the risk of fires by 20 per cent This reflects the benefits of our targeted safety investment programs.

Total safety investment: 2011-2020 ($m, 2015 real)



Innovation: improving efficiency by developing and adopting new solutions

Investing in innovation will create efficiencies, enabling us to stabilise prices while making our network safer.

Given the potential alternatives to connecting to the network that customers will be offered in the future, it is vital that we achieve both goals.

AusNet Services has a proven record in innovation and operating efficiency, so we are confident we can achieve our customer value and safety aims.

Our plans for 2016-2020

OUR AIMS | Delivering customer value

Stabilising customer prices is a priority

In line with this priority, we have slowed the rate of revenue growth following a period of steady increase driven by safety investments .

The total amount of revenue we are proposing for the 2016-2020 period is $3.3 billion, or $661 million dollars per year. AusNet Services customers' bills will be essentially flat over the next five years with average revenue per customer falling one-third of one per cent per year.

Meeting the needs of the network efficiently

Stabilising future revenue growth is partly driven by our plans to constrain future costs, while maintaining the right level of investment to reduce the risk of bushfires and prevent costly asset failures.

This will entail the following steps:

Absorbing significant increases in operating costs

We have not included expected increases in operational costs. Rather than seeking to increase prices by passing on these costs to customers, we will absorb them.

Reducing growth expenditure

Better forecasting techniques gives us greater confidence to defer investment in network upgrades.

Continuing to invest in demand management and innovation

To provide cost effective alternatives to expensive network upgrades, we will develop innovative solutions for a safer network, and apply advanced IT tools to better manage the network and prepare it for the future.

Passing on the benefits of lower interest rates to customers

The fall in interest rates and debt costs are being passed back to customers. AusNet Services is proposing a fair return on its assets from both a customer's and an investor's perspective.

Adopting an accelerated depreciation approach

Accelerating depreciation for assets that have been or will be removed from the network means that the remaining value of these assets will be lower in the future. We believe it is fair that future generations do not continue to pay for assets that no longer provide services, while also paying for the new, safer assets to be installed.

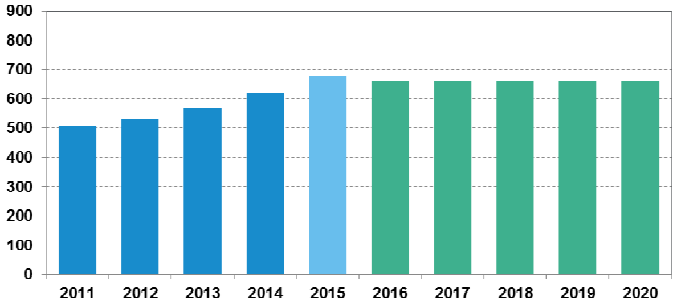
AusNet Services has a proven track record of constraining costs in the face of a changing operating environment.

During 2011-2015, despite major changes, expenditure has been held in line with the amount approved by the regulator. Our focus on cost control was particularly important given the extra safety obligations imposed on the network mid-period and the decline in revenue growth caused by the fall in energy usage to a level well below that was expected.

AusNet Services has been recognised in the AER's benchmarking as one of the most efficient rural distribution businesses in Australia.

Flattening revenue

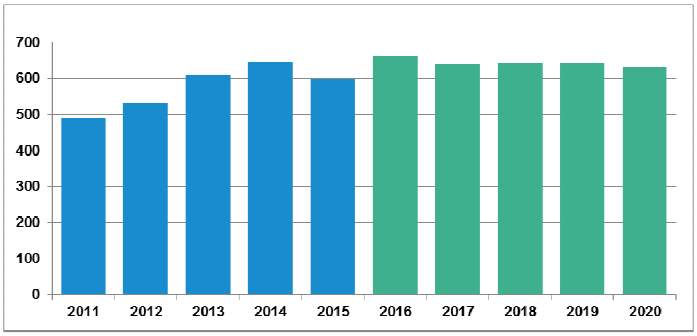
Total revenue: 2011-2020 ($m, 2015 real)



Revenue grew 5.2 per cent a year in 2011-2016, but will only increase by 1.4 per cent a year for 2016-2020.

Flattening total expenditure

Total expenditure: 2011-2020 ($m, 2015 real)



Total expenditure will be $3.2 billion. Prudent and efficient cost management will flatten expenditure between 2016 and 2020.

Our plans for 2016-2020

OUR AIMS | Delivering improved safety

Continuing our investment in safety

For 2016-2020, AusNet Services has proposed a program that will continue to reduce safety risks to the community and to our workforce.

AusNet Services has legislative and regulatory obligations to minimise the risk electricity assets pose to both the public and its employees.

This program is consistent with our governing principle related safety expenditure - *'keeping identified risk as low as reasonably practicable.'*

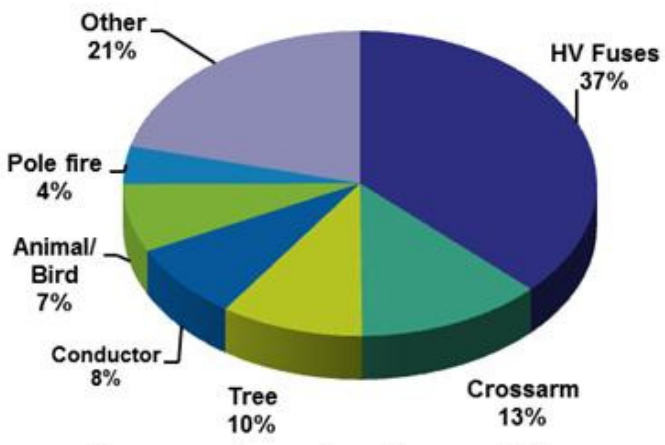
The Victorian electricity industry (in conjunction with the State Government and Safety Regulator) uses cutting-edge risk modelling techniques to develop investment programs and identify changes that need to be made to our operations.

As a result of this modelling, we forecast a 20 per cent reduction in fire and electric shock risk by 2020.

We will achieve this reduction through a series of safety programs that target specific aspects of our network.

Identifying causes of fires

Causes of assets and ground fires: 2006-2014



Targeted safety programs

2016-2020

EDO fuse replacements - target fuse types associated with greatest number of fire incidents

Cross arm replacments - replace wooden cross arms with steal cross arms

Vegetation managment and overhang removals - reduce risk of trees falling on network assets

Conductor programs - conductor replacement, undergrounding and installation of armour rods and vibration dampers

Animal and bird proofing - targets assets in high bushfire risk areas

OUR AIMS | Improving efficiency through innovation

Innovation

Reduced energy use, the increasing presence of residential solar, new energy technology such as battery storage and climate change are all impacting on electricity distribution.

However, advances in data technology such as smart metering are creating smarter, more responsive networks.

We believe that innovation will enable our network to evolve in response to the major changes that are occurring and continue to bring benefits for our customers. Therefore, our proposal includes plans that will drive innovation and efficiency in our business.

Increased Demand Management and Innovation Allowance

Research and development with a long-term focus has strong potential to generate customer value. However, being more speculative in nature, this type of research is not currently reimbursed to AusNet Services in either historic allowances or incentive payments.

Therefore, in our proposal we are seeking an expansion of the demand management innovation allowance (DMIA) from its current $3M to $10M over the period. One focus of our demand management research will be the use of household storage batteries to support the grid and with the potential to reduce future energy bills.

We will also continue our research into large scale energy storage. The Grid Energy Storage System Trial currently underway investigates the effectiveness of a large, transportable battery storage system in managing network demand peaks. It is one of the most significant trials of its kind in the world.

Aside from the DMIA, a large proportion of innovation investment has been and will continue to be funded by the company, either through:

i. incentive payouts from cost savings or service improvements; or

ii. finding operational savings in other areas.

New research in network safety

We are also involved in some promising research and development involving trialling technology known as Ground Fault Neutralisers (GFNs), in collaboration with the State Government.

GFNs reduce the amount of electrical arcing where the fault occurs, which reduces the risk of fires.

If the GFN trials are successful, there will be a substantial network augmentation program to implement this technology. As the volume and cost of the program is uncertain, we are proposing a specific pass-through event once a program is agreed upon.

New Information and Communication Technology (ICT)

Efficient business processes require the support of advanced ICT applications and tools. By modernising these systems, we can ensure our business is more responsive to customers and ready to support a modern network.

How do we decide how much money is needed?

As a regulated distribution network business, our total revenue is determined by adding up different kinds of costs. Broadly, these are:

(i) *Return on investment:* the on-going cost of financing our assets.

(ii) *Depreciation*: the value of regulated assets that are written down each year.

(iii) *Operating expenditure*: the cost of operating our business and maintaining our assets.

(v) *Capital expenditure*. The cost of buying and building new network assets.

(vi) Other *expenditure*. A range of other costs such as corporate tax and bonuses or penalties related to regulated network incentive schemes.

Understanding revenue requirements as *past* and *future* costs

Electricity distribution is a very capital intensive business. Other industries commonly thought of as capital intensive include oil production and refining, telecommunications, railways and airlines.

Much like a customer taking out a home loan, we have raised equity from investors, and borrowed money from lenders to fund the construction of the network over the last 50 years. This investment is currently valued at $3.5 billion. In return, we pay interest to our lenders and dividends to our security holders for the money they have provided.

As a result, much like the example of a home loan, we do not expect our customers to pay back the entire cost of an asset we build up front. Rather they pay the annual financing costs (interest and dividends - the return on investment) and a proportion of the principal (depreciation).

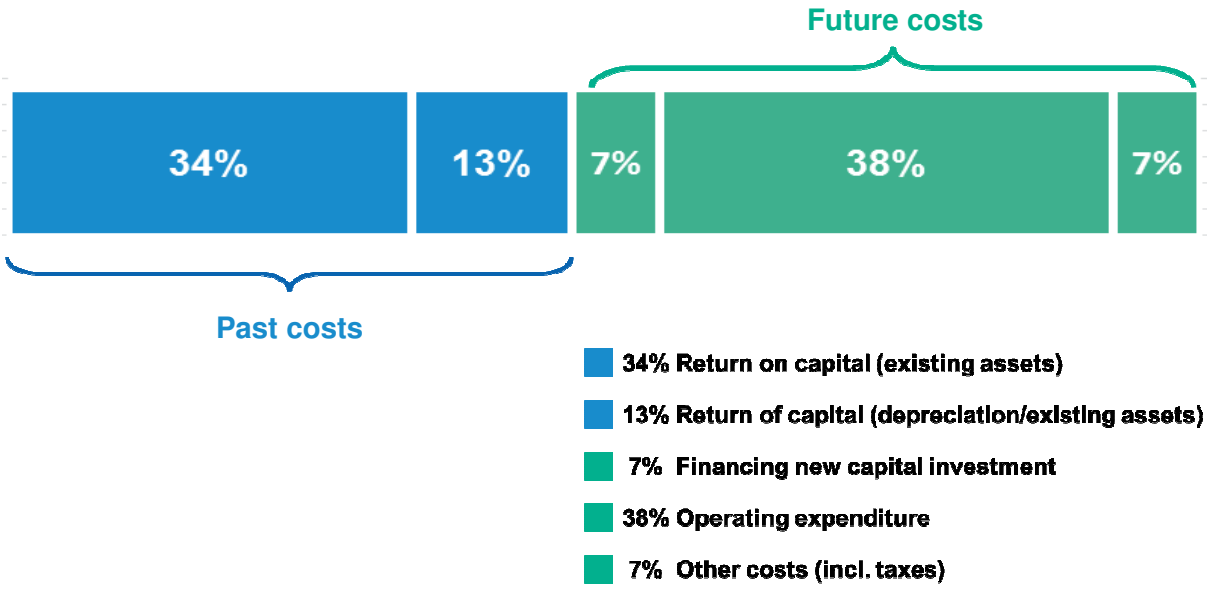
Consequently, over the next five years, 47 per cent of our revenue will be used to pay for the financing of assets that have already been bought or built, i.e. things we have already done.

We can think of this as paying for *past* (or sunk) *costs.*

The remaining 53 per cent of revenue can be thought of as paying for *future costs.* These largely relate to things we *plan to do* to operate, maintain and grow our network, but also includes other costs such as tax and incentives.

The diagram below shows this breakdown of total revenue into past and future costs.

What makes up our revenue requirements for 2016-20?



Proposed operating expenditure

Operating expenditure, or opex, funds the running of our network-maintenance, repairing faults, controlling trees near our powerlines and so forth.

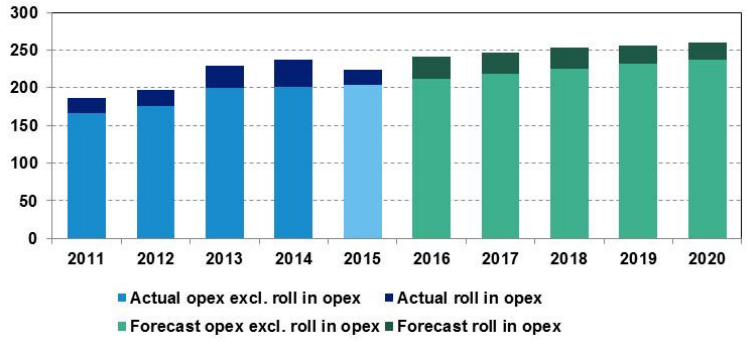
Our proposed operating expenditure for 2016-2020 of $1,256 million in real terms is based on current levels, reflecting expenditure that will ensure a safe and reliable electricity supply at the lowest possible cost.

We expect opex to reflect a 'business as usual' outlook with increases in line with network growth and labour costs.

On exception is in the area of insurance costs, which will increase to reflect the high bushfire risk that exists in parts of our network's geographic area. Insurance accounts for about five per cent of opex.

The only other significant change we are proposing is an increase in the demand management innovation allowance, to enable us to continue developing innovative solutions to network peak demand.

Total opex required ($m, 2015)



Proposed capital expenditure

Capital expenditure, or capex, funds the buying, building and installing of plant and equipment such as powerlines, poles, transformer and so forth. in other words, all the pieces that make up our electricity distribution network.

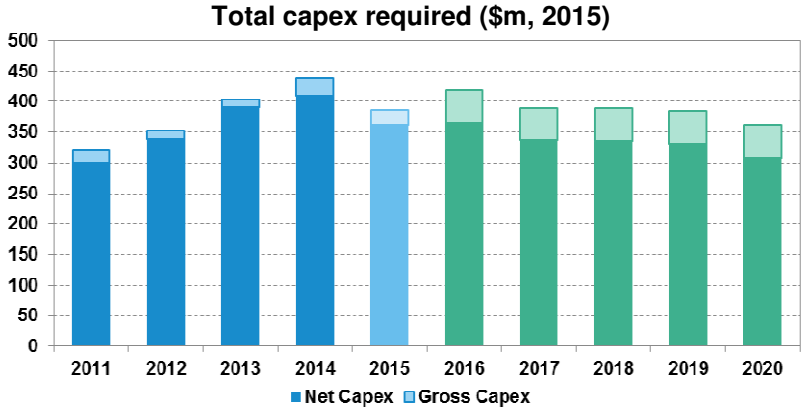
The capex we have proposed will continue to reduce bushfire risks related to the distribution network.

For the 2016-20 period, capex is $1,941 million (gross), or $1,676 million net after government and customer contributions. This represents a 2% increase in total (gross) capex, and a 7% decrease in net capex.

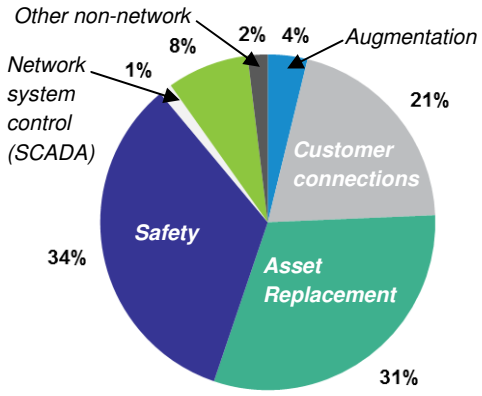
Safety obligations and programs to reduce bushfire risk make up the largest component of capital expenditure 34 per cent, while the capex we need required to expand network capacity makes up a small portion of overall capital expenditure.

The capex we are proposing for replacement and augmentation of the network reflects new information about the value customers place on reliability. The graph below (left) shows that forecast capital expenditure will be relatively flat over the coming five year period.

Total capex required ($m, 2015)



Gross capex by category



Rate of return

47 per cent of our proposed revenue relates to financing past investments. This reflects the allowed rate of return to fund the interest we need to pay to our lenders, and dividends to pay to our security holders.

Setting the right rate of return on capital is important.

If the rate of return is inflated, customer network charges will be higher than necessary.

If the rate of return is below a fair market return, network businesses will be unable to attract the necessary investment required to provide an electricity service that is in the long term interests of customers.

Over the next five years, AusNet Services is proposing a fair return on its assets from both a customer's and an investor's perspective. In particular, the large fall in interest rates and debt costs are being passed back to customers.

In the ordinary course of developing our five year plans, AusNet Services must make complex network decisions that strike the right balance in trade-offs between safety, reliability and cost outcomes.

The nature of unprecedented change over the current regulatory period has meant that this regulatory proposal balances seeking to deliver long term sustainable prices with the immediate needs to invest in improving community safety and replace aging assets of the network.

In getting the balance right, the key risks addressed by this plan and benefits to customers are:

Keeping prices sustainable.

Our proposal includes a number of measures to slow the growth in our contribution to the average customer bill to 2.2% per annum. In real terms this means AusNet Services' contribution to customers' bills will be essentially flat over the next five years, with average revenue per customer falling by one third of one percent per year.

Investment in safety does not meet community expectations

Underinvesment in our network and/or extreme weather conditions may adversely impact community safety by increasing the number of incidents that have the potential to cause a fire start, and the number of electric shocks sustained.

AusNet Services' adopts an asset management approach that is rigorous, analytical and externally certified – our asset management processes are considered to be Australian best practice. This ensures that investment decisions take into account the consequences of asset failure in terms of risk to the community and the probability of that failure occurring.

In addition, AusNet Services has proposed further investments in safety where significant benefits to the community can be achieved through incremental expenditure, regardless of whether these benefits can be financially quantified.

Level of reliability does not meet customer expectations

As existing assets age and wear, there is a greater risk of them failing and causing interruptions to supply. In previous regulatory reviews, asset replacement programs were developed based on a 'maintain case'; that is, the program was based on the level of replacement required to maintain existing levels of reliability.

Due to a recent reduction in the official Value of Customer Reliability (VCR) measure, AusNet Services believes that it is prudent to adopt a slower rate of asset replacement to reflects customers' willingness to accept a lower level of reliability. As a result, AusNet Services has proposed an increase of three minutes in the annual outage duration experienced by customers, above the current average of 150 minutes.

While our customers have expressed a strong preference for current reliability levels, AusNet Services believes that this increase will not have a material impact on their experience of network reliablity.

Unforseen legislative changes result in bill increases

The cost of VBRC related safety programs contributed to around one third of price rises over the last five years. There is a risk that changes in government or new initiatives may result in new legal, regulatory or service obligations.

AusNet Services' proposal does not include an estimate for investment to meet additional legislative or regulatory obligations. Rather, we plan to seek funding for extra capex and opex associated with such obligations. Whilst this will result in bill increases, our approach ensures that customers will only ever pay for work that will be undertaken.

Rate of return fails to attract and retain long-term investment in the network

Under investment in the network may occur if a reasonable return is not provided to investors.

AusNet Services is proposing a fair return on its assets from both a customer's and investor's perspective. In particular, the large fall in interest rates and debt costs are being passed back to customers. As a result, the proposed rate of return is below the current period, but reflects the level necessary to attract and retain the long-term investment necessary to ensure our business remains viable and sustainable.

Network does not evolve to meet changing customer behaviour and new technology

The traditional role of the network is beng transformed by changes in customer behaviour and more in disruptive technologies such as local solar PV generation and battery storage. If our network does not evolve to accommodate these changes, the quality of existing services may diminish or the range of services offerred will not meet customer expectations. AusNet Services' regulatory proposal includes investment in innovation to provide the services customers expect by modernising the network, and preparing the business for a more complex and uncertain future.

KEY POINTS FROM THIS CHAPTER

- *AusNet Services has carefully balanced the immediate needs of the network, its customers and the community with a longer term vision for the network that ensures it provides an economically feasible service.*
- *As a result, in 2016-2020, our component of customers' bills will not increase in real terms.*
- *To achieve this, we have proposed flat revenue and expenditure, while continuing to meet our safety obligations and community expectations*
- *Innovation and its resultant efficiency improvements are the key to delivering customer value while improving safety.*
- *We have proposed a fair rate of return to attract and retain investors, while ensuring customer charges are not unnecessarily high.*

4 Feedback

How to provide feedback on our plans

AusNet Services welcomes feedback from all its customers and stakeholders on our five-year plans.

You can provide this feedback:

By email:
regulatory.customers@ausnetservices.com.au

In writing to: Catherine Gip

Customer Engagement Manager

Locked Bag 14051
Melbourne City Mail Centre 8001
Victoria Australia

Online at: www.ausnetservices.com.au/Electricity Determining+Revenues/Distribution+Network.html

Customers can also provide comments on our proposals to the AER (www.aer.gov.au)

Our Privacy Policy is consistent with the Privacy Act 1988 (Cth) and the Australian Privacy Principles.

Please visit our website at www. Ausnetservices.com.au for our Privacy Policy.