

“Our responsibility



Powercor
Regulatory Proposal
Overview 2016–2020



“Our customers have provided feedback...”

Our vision and values

Our vision is connecting for a bright future.

To realise this vision we are focused on:

- Continually improving how we engage with our customers and key stakeholders on what matters to them to ensure we meet the energy needs of Victorians today and well into the future
- Providing customers with outstanding value for money by maximising the efficiency of our operations, with a focus on safety and reliability
- Maintaining appropriate levels of investment in our network to support growth in Victoria, including associated business, industrial and infrastructure developments
- Understanding changing consumer preferences, emerging technologies and alternative sources of energy, to ensure effective and cost-efficient reinforcement of our network.

Our six values underpin everything we do, every day. They give even greater focus to understanding and supporting our customers, doing what is right and helping our people and our business strive for excellence in everything we do.

1. **Live safely**
2. **Make it easy for your customer**
3. **Succeed together**
4. **Be community minded**
5. **Be the best you can be**
6. **Drive and embrace change**

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And we've been listening,,

Dear stakeholder,

With our network powering some of Victoria's most popular tourism destinations and fastest growing metropolitan communities, as well as some of our most significant agricultural regions, we understand the importance of delivering a cost-effective, reliable and safe electricity supply.

We recognise our role in the economic and social development of regional Victoria and the responsibility we have in delivering this vital service to our customers.

Our commitment to our customers is demonstrated in our strong track record in respect to safety, reliability, cost efficiency and customer satisfaction. This is evidenced by recent benchmarking data prepared by the Australian Energy Regulator (AER) that shows we are the most reliable and cost-efficient regional and rural distributor in the National Electricity Market.

We are confident that our 2016–2020 Regulatory Proposal outlines investment priorities that strike the right balance between safety, reliability, growth and affordability. Importantly, these investments ensure we can responsibly and efficiently respond to the challenges in our sector and facilitate customers' changing energy choices.

During the past two years we have stepped up engagement with our customers to ensure we understand your current and future needs. Your views, as well as our regulatory obligations, have informed the development of our Regulatory Proposal for the next five years.

I want to take this opportunity to thank the thousands of customers and stakeholders who participated in our engagement program. Our commitment is to keep talking to you about issues that affect your electricity supply and energy choices, recognising that the way many customers are using electricity is changing.

Finally, I encourage you to participate in the AER's separate and independent consultation on our Regulatory Proposal – your continued feedback helps us deliver the safe, reliable and affordable electricity supply you expect in a way that meets your evolving needs today and into the future. Thank you again for your support in this process.



Tim Rourke
Chief Executive Officer



Highlights from our Regulatory Proposal

1. Continuing our commitment to deliver value for money services

We are seeking to invest in priorities that strike the right balance between safety, reliability, growth and affordability so that we meet the expectations of our customers today and into the future.

As a result of our efficient approach to investment, our customers will see a \$43 reduction in the average residential customer's annual electricity bill in 2016, adjusted for inflation. Network charges will remain stable for the remainder of the five-year period.

The investment we will make during the upcoming regulatory control period is based on the following priorities:

- Working in collaboration with the Victorian Government to implement initiatives that reduce the bushfire risk and protect our customers, communities and our network
- Maintaining our infrastructure and replacing ageing assets to maintain cost-effective reliability
- Supporting growing areas of Victoria through targeted network investment
- Building a network for the future; using technology to better manage our network, deferring capital expenditure and delivering better price outcomes for customers in the long term
- Making it easier for our customers by automating and simplifying our basic connections process and implementing a new customer portal enabling customers to make more informed choices about their electricity usage.

During the 2016–2020 regulatory control period residential customers will see a reduction in metering costs as a result of the successful introduction of remotely read smart meters to over 99 per cent of our customer base.

Customers will also benefit from better capital investment financing costs during the five-year period.

Our approach to disciplined and considered investment decisions has been recognised in the first AER annual benchmarking report. The report released in November 2014 highlighted our strong productivity performance. See page seven for more detail.

2. Safe, reliable and efficient management of our assets

The Powercor network covers some of the fastest growing regions in Australia including the western suburbs of Melbourne and greater Geelong, and the agricultural regions along the Murray River and south west Victoria. We will invest \$243 million on major capital works in those areas where it is needed most. We also forecast to spend \$774 million on building infrastructure to enable customers to connect to our network. A significant proportion of this expenditure will be directly recovered from the connecting customers, such as large businesses and farms. In addition, we will invest \$665 million to replace ageing assets such as powerlines and transformers to protect the safety, quality and reliability of electricity supply to our customers.

We continuously monitor and assess the overall health and condition of our assets to ensure our investment in asset replacement is timely and prudent. We have well-developed preventative maintenance programs, robust vegetation management practices, and investments in new technologies that minimise risks, specifically in bushfire risk areas. In partnership with the Victorian Government, we will undertake around \$60 million of works during the upcoming regulatory control period to underground powerlines in the highest bushfire risk areas.



3. Adapting the network to meet the challenges of the future

We will continue to invest in technologies and solutions that help us build a smarter network that can accommodate the two-way flow of electricity and information, particularly as energy flows and quality of supply issues become more complex.

In the 2016–2020 regulatory control period we are planning investments that can maintain voltage quality to meet an expected increase in embedded generation connections such as solar panels.

A battery storage trial is being conducted near Ballarat to supply electricity during periods of high demand and reduce stress on the local network.

We will use smarter analytics from our smart meter data so our network is ready for new services such as electric vehicle charging stations.

In the 2016–2020 regulatory control period we will invest in better network control, better data analytics and innovative ways to manage and optimise our network to reduce costs and improve value to our customers.

We are committed to working with progressive local councils to support their sustainable energy initiatives.

4. Making it easy for customers to get the information they need

Access to usage data from smart meters was a common theme in customer and stakeholder feedback throughout our engagement activities. To address this feedback, we will implement systems to better engage with our customers, understand their individual preferences and enhance their access to their data through a customer portal.

Coupled with investment in a customer relationship management system, we will be able to better respond to customer requests and work with them to help them understand their choices about energy usage. These changes will enable innovative product offerings and incentives for customers to help us manage our network on high demand days. For example, rebates for customers who reduce their electricity use during peak periods.

Our Regional Business Managers proactively engage large customers to ensure early involvement in supporting their changing and proposed energy needs.



Our business

Powercor is the most efficient and reliable regional and rural electricity network in Australia, and is one of Victoria's five privately owned electricity distributors. We own and manage assets that deliver electricity to more than 765,000 homes and businesses across Melbourne's outer western suburbs, and central and western Victoria.

Our electricity distribution network is vast and complex, covering more than 145,000 square kilometres and traversing difficult and remote terrain in some parts of the state.

We make a substantial contribution to Victoria's economic development, powering existing businesses and growth across the communities in which we operate.

We employ more than 1,000 people at 11 depots across Powercor's service area, creating jobs for people who want to live and work in regional Victoria.

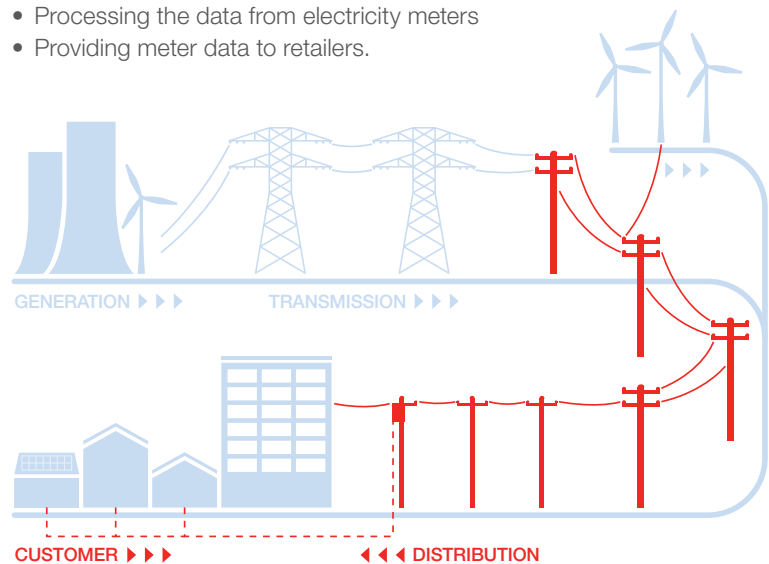
We responsibly manage our network and our investment decisions are underpinned by efficient maintenance of our existing assets and investment in emerging technologies that ensure our communities can meet tomorrow's challenges. We are responsible for:

- Maintaining network safety and reliability to meet the electricity needs of our customers
- Planning and designing network extensions and upgrades to meet customers' current and future electricity needs
- Operating the network on a day-to-day basis
- Connecting new customers to the network
- Maintaining the public lighting system
- Processing the data from electricity meters
- Providing meter data to retailers.

Transporting electricity to your place

Electricity is transported at high voltage as it is the most efficient way to move energy from the generator to where it is needed.

Zone substations and smaller transformers convert this energy from 66,000 volts and 22,000 volts to lower voltages for homes and businesses.



Powercor Network statistics

Network route line length:	67,006km
Network area:	145,651sq km
Customer numbers:	765,241
Customer density:	11.42c/km
Zone substation transformers:	141
Distribution transformers:	83,359
Poles:	561,471
Underground lines:	12%
Network reliability:	99.96%

(As at 31 December 2014)

A changing energy future

The way that Victorian households and businesses use energy is changing with customers making choices that enable them to reduce their energy costs, lower their carbon footprint and take advantage of new energy-efficient products.

Key changes include:

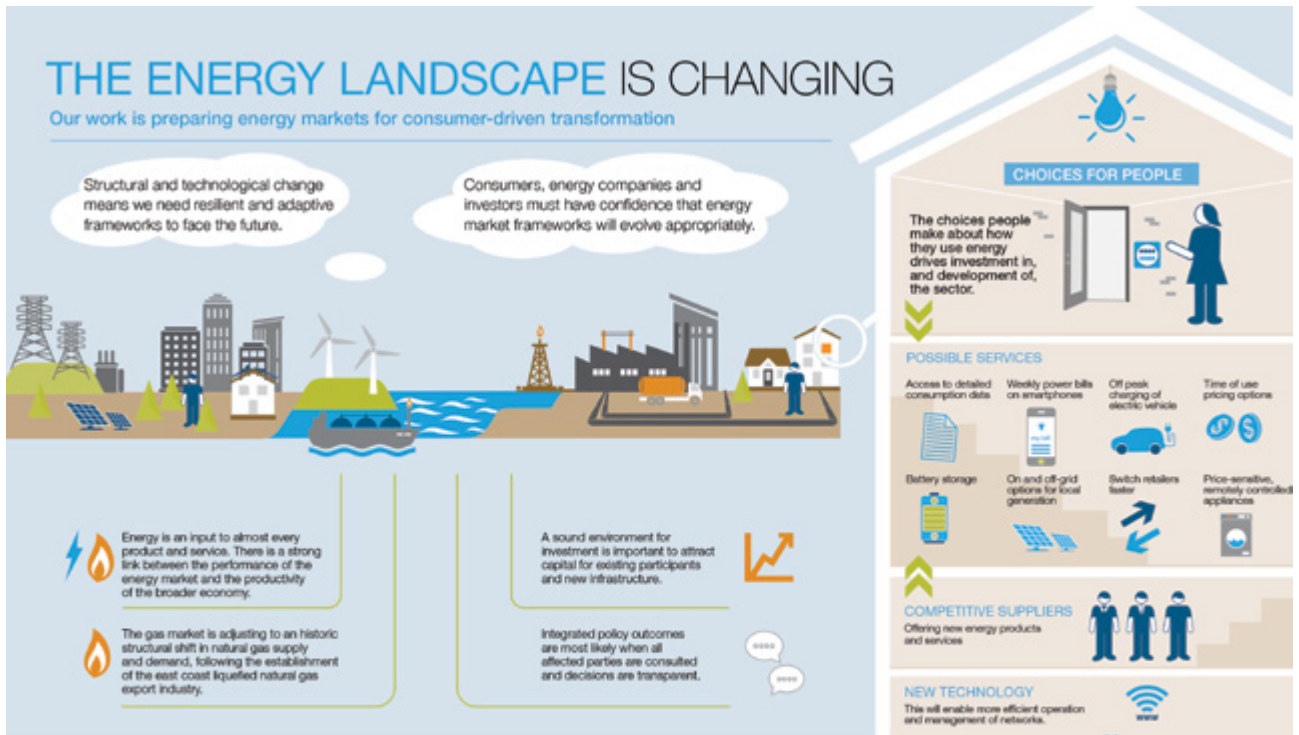
- Customers reducing their electricity usage to manage the cost of their bills
- Improvement in building standards is reducing consumption of electricity through better insulation and energy-efficient design
- Energy-efficient appliances and high-efficiency lighting are reducing commercial and domestic electricity use
- Increased adoption by business of embedded generation solutions to help meet their own electricity needs.

These customer choices require us to design and build our electricity network to meet changing energy usage patterns. For example, to ensure our customers and the public remain safe when faults occur, we are changing the way we configure our network. Managing our network has become increasingly complex as more customers on our network generate electricity, creating a two-way energy flow.

Powercor is committed to building networks for the future, using direct feedback from our customers to guide us in where we need to invest in our network. To respond to this challenge, our goal is to continue to make investments that enable customers to make choices about how and when they use or generate electricity.

We will introduce additional voltage regulating devices to help control voltage levels on the network to accommodate an increasing level of embedded generation on the network.

Australian Energy Market Commission (AEMC) Infographic 2014 – The energy landscape is changing



POWER OF CHOICE

We are making new rules to implement our Power of Choice reforms. This work is developing the energy market to meet consumer needs over the next 15-20 years in three key areas:

Consumer information
so people can choose the products and services that are right for them.

Tech-savvy innovations
so the market can open up to new metering and technology options.

Poles and wires reform
so networks provide cost reflective prices which consumers can use to make decisions about how they consume energy.

A strong track record of balanced, efficient outcomes

We are proud of our strong performance and reputation for safety, reliability and efficient operations that provide our customers with outstanding value for money.

Never compromising safety

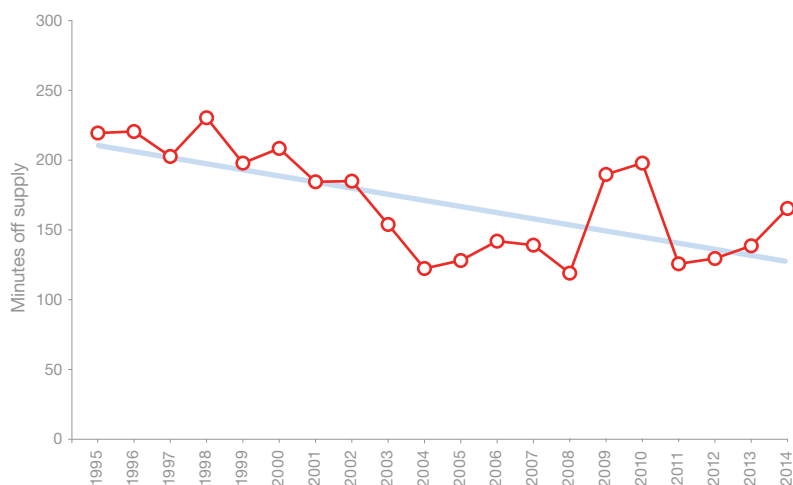
Safety is our number one priority. Electricity distribution is inherently hazardous due to the nature, size and location of our assets. We are committed to achieving the highest standards of safety for our customers, employees, contractors and the community. A key consideration is the community safety risks posed by the environment in which our assets are located, particularly in high bushfire risk areas. The overall health and condition of our assets is an important contributor, and we have robust preventative maintenance and replacement policies to minimise risks arising from our assets. We minimise these risks further through vegetation management and investment in new technologies. We work collaboratively with the Victorian Government and Energy Safe Victoria (ESV) to reduce safety risks.

Reliability

Consistent with customer expectations, we have maintained our commitment to reliability performance during the current regulatory control period. This is the result of a robust and disciplined approach to asset management.

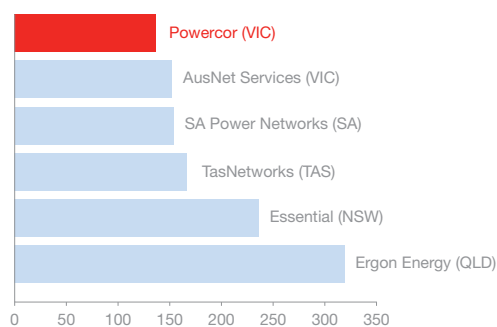
The graph below shows the minutes per year that our customers are without supply presented as a per customer average, referred to as the System Average Interruption Duration Index (SAIDI). The results show unplanned outages. Our strong reliability performance is the result of robust asset management programs we employ across our network. Our reliability performance compares favourably to other Australian electricity distributors, particularly regional and rural distribution businesses. This is despite our customers being spread across our extensive network with less than 12 customers per kilometre and only 12 per cent of our assets underground.

Whole of network unplanned SAIDI 1995–2014 (after exclusions)



Source: Powercor analysis

Rural distributors whole of network unplanned SAIDI average 2006–2013 (after exclusions)



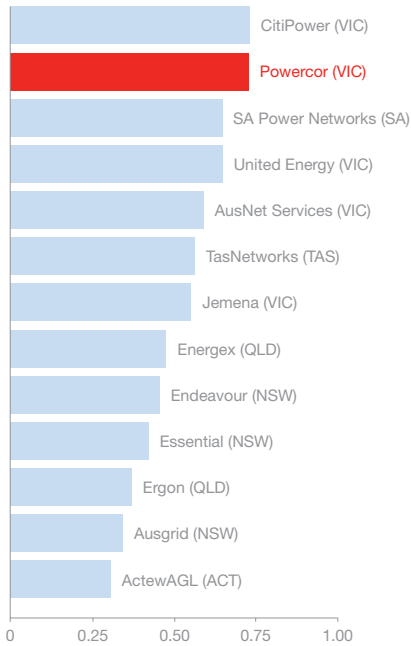
Source: AER economic benchmarking RIN data

Efficient network management

Our safety and reliability performance has been achieved without compromising our record as being one of the most cost-efficient distributors in the National Electricity Market. This is despite our business servicing some of the most difficult and diverse terrain and remote parts of the state.

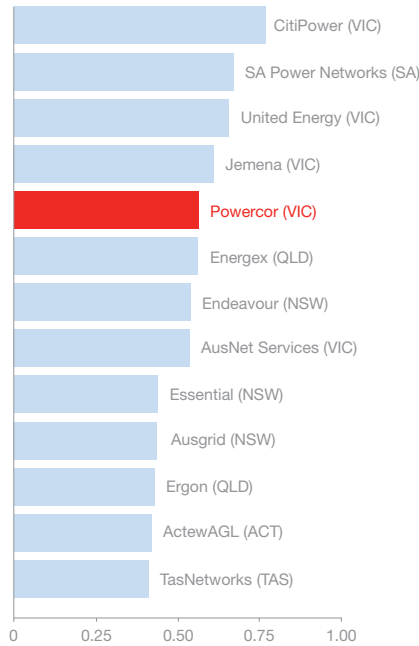
The AER released its first annual benchmarking report in November 2014. The AER analysis shows that Victorian distribution businesses are the most efficient in Australia. In particular, Powercor ranks second on operating expenditure productivity and fifth on total expenditure productivity. Powercor has among the lowest total costs of all networks despite very low customer density, the age of our network, geographic characteristics and the distances covered.

Operating expenditure productivity index (2006–2013)



Source: Economic Insights, Economic Benchmarking Assessment of Operating Expenditure for NSW and ACT electricity DNSPs, November 2014

Total expenditure productivity index (2006–2013)



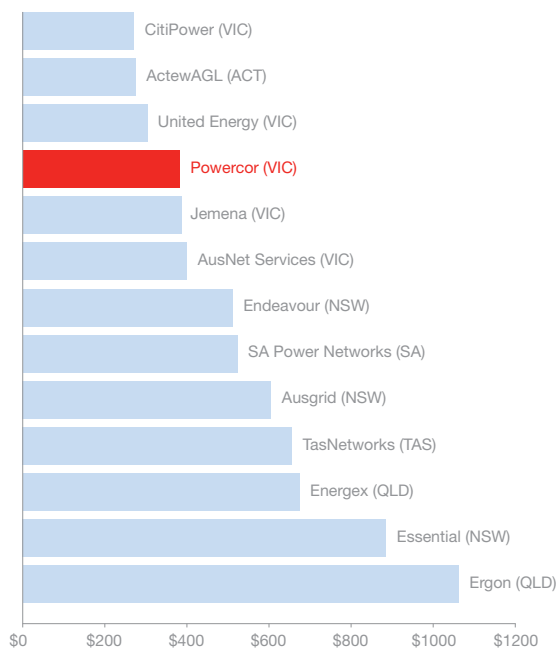
Source: Derived from AER, Electricity Distribution Network Service Providers Annual Benchmarking Report, November 2014

Affordable pricing outcomes

Our customers pay amongst the lowest distribution network costs in Australia. Research conducted by energy sector experts Oakley Greenwood concluded that Victorian electricity distribution network charges make up less than 25 per cent of the average household electricity bill, compared with around half a customer's bill in some other states. Powercor's distribution network charges comprised less than 25 per cent of the average household electricity bill in 2014.

Based on our 2015 published distribution use of service (DUoS) tariffs for a customer with an annual consumption of 4,300 kWh and excluding GST, our average residential customer on a single rate tariff pays \$382 per annum compared to higher DUoS charges in other states, particularly when compared to other predominantly rural based distributors.

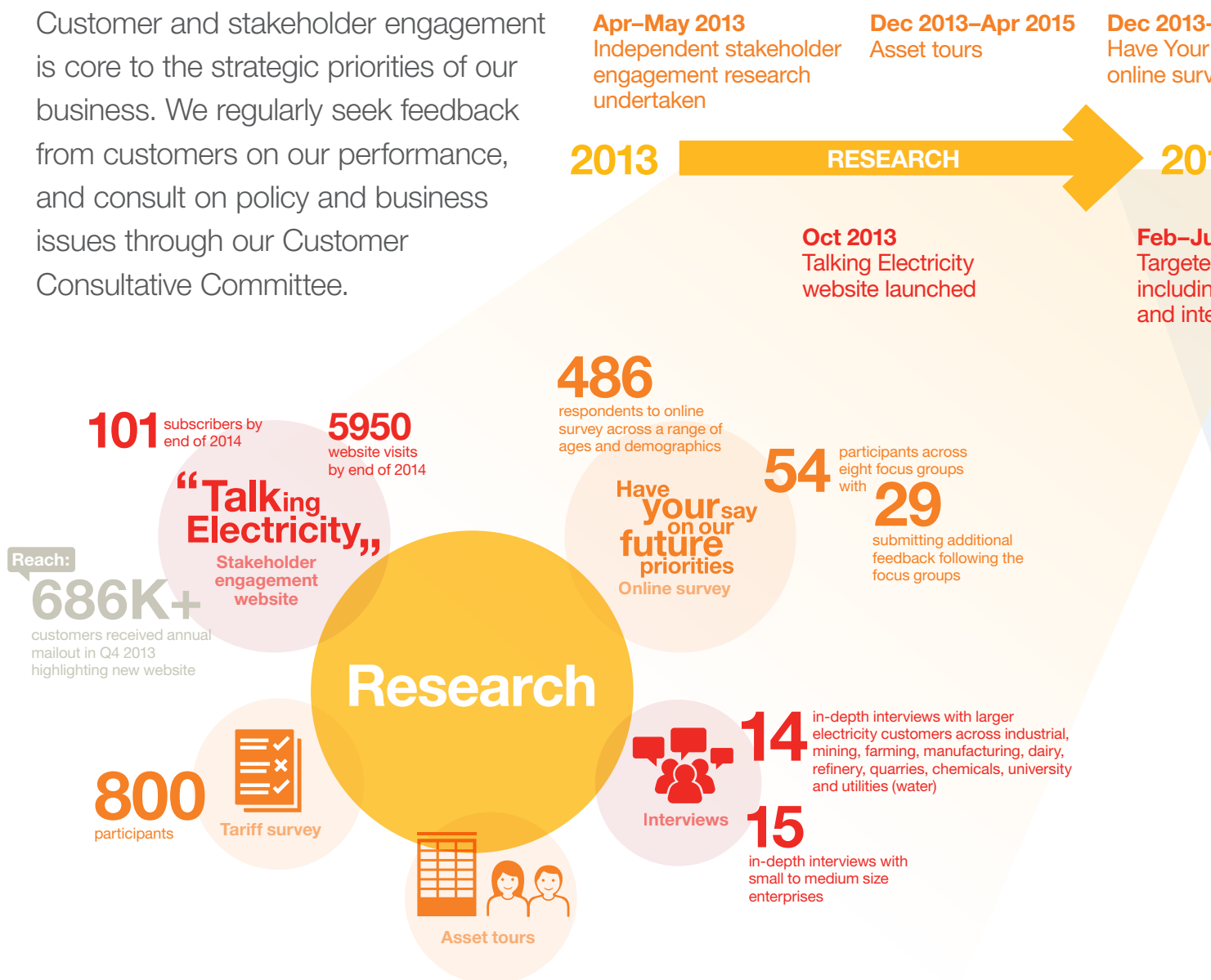
How we compare – Distribution charges across Australia (2015 dollars)



Source: Powercor analysis

Our customer and stakeholder engagement

Customer and stakeholder engagement is core to the strategic priorities of our business. We regularly seek feedback from customers on our performance, and consult on policy and business issues through our Customer Consultative Committee.



To ensure we had a robust foundation for our detailed plans and submission for the 2016–2020 regulatory control period, we undertook a comprehensive stakeholder engagement program, which started more than two years ago to better understand what was important to our customers and ensure their views were incorporated into our planning.

Through our engagement program we have reached out to our customers and stakeholders through advertising, media interviews and business as usual activities. As a result thousands of our customers and stakeholders participated in activities that included independent market research and consultation activities, including five well-attended Regional Engagement Forums held at Caroline Springs, Geelong, Mildura, Bendigo and Warrnambool.

The activities covered all key stakeholder groups and customer segments across the communities in which we operate. Opportunities to participate were widely promoted; we made use of independent market research experts, involved senior management and subject matter experts, and aimed to reach different customer segments in a variety of ways.

Other ongoing activities throughout the program included:

- Key stakeholder briefings
- Proactive engagement via the Talking Electricity website
- Ongoing business-as-usual engagement activities
- Asset tours
- Ongoing analysis of customer and stakeholder engagement submissions and outcomes.



Jun 2014 and research activities
g focus groups
erviews

Aug 2014 Tariff survey

Nov 2014 Kildonan Uniting Care facilitated customer focus group in Shepparton

Apr 2015 2016–2020 Regulatory Proposal and overview paper submitted to the AER



What our customers told us

Through our engagement program, our customers and stakeholders told us what they want from Powercor during the upcoming five-year period. This feedback has informed our plans and as a result we are confident that our Regulatory Proposal delivers on the expectations of our customers. Customer expectations have been summarised into seven key insights:

- Reliable supply for a reasonable price
- Efficient and targeted investment across our network
- More investment in regional areas is a priority for larger customers
- Pay close attention to safety and maintenance and invest more in activities that reduce risk of fire danger
- Forward and proactive planning to ensure the integrity, capacity and capability of the network
- Meet future needs through a smarter grid that enables choice and flexibility, taking pressure off the existing network and facilitating the connection of renewable energy sources
- Provide customers with greater access to readily understandable information about their electricity usage.

How we are responding

The integration of customer expectations and concerns into our planning is an important part of developing our Regulatory Proposal. The following feature illustrates how the engagement outcomes have been factored into our Regulatory Proposal and long-term business plans.



Dairy farmers want a greater level of reliability in rural areas.

We are planning targeted investment to replace some of our older infrastructure in regional and rural areas and will fund a continuing program to upgrade overhead lines.

You want a safe, reliable electricity supply at a reasonable price. Most people (83% of survey participants) are satisfied with the current reliability of their electricity supply and do not want to pay any more to improve it. Some regional customers say we could do more to improve reliability in regional and rural areas.

Larger business customers stressed the critical importance of continuous, uninterrupted, reliable supply of electricity to their organisation, with the implications of any interruption in supply of electricity representing a major cost to business.

We take a cost-efficient approach to our investment decisions so we deliver the best long-term outcomes – this is about balancing cost savings with the need to maintain a safe, reliable electricity supply. Through the ongoing assessment of the condition of our assets, we have identified a number of areas which require upgrades and we plan to replace more of our ageing infrastructure.

Absolutely no risks to be taken when it comes to fire related safety and take all reasonable measures to protect the safety of customers and their communities. Survey participants were happy to accept a small price increase that contributed to reduced risk of fire danger.

Safety is our number one priority. We will take all reasonable steps to ensure community safety including the ongoing maintenance of our electricity assets.

We will continue to invest in bushfire mitigation activities and prudently and efficiently implement measures to reduce fire risk. Under the Victorian Government's Powerline Replacement Fund, we will underground powerlines in high risk areas.

A clear preference for the development of a wider campaign to improve safety awareness in the community (as opposed to specific messages targeted at specific groups).

We will work with Energy Safe Victoria to promote community safety.



Undergrounding was seen as a necessity (but dependent on a cost-benefit analysis); with a general consensus that new developments and fire prone areas should include undergrounding and that outdated poles/wires should be replaced with an underground equivalent. Infrastructure for new suburbs to be forward thinking and well considered, and to include undergrounding.

Developers of new subdivisions are generally required to underground electricity cables. Undergrounding existing powerlines is expensive and would impact on customers' bills.

Some undergrounding can take place if customers directly benefitting from the work are prepared to pay or work with their local council to secure funding. We will continue to work with local authorities and customers who commission projects to put powerlines underground.

Targeted investment to support growing areas of the state.

We have identified areas that are growing and will invest to support residential, commercial and industrial growth in these regions.

Large energy users expressed a desire for stronger partnering in the form of Powercor taking a lead role in infrastructure investment, and in one case, investing in infrastructure to attract more business to the Mildura region.

We are committed to partnering with local government and businesses to identify areas of growth and ensure appropriate targeted investment occurs. Under the current regulatory framework, we cannot build infrastructure without clear drivers for growth.

Most customers are happy with our current vegetation management practices but some would like less pruning of older trees in town centres. There was minimal interest in trees being trimmed lightly and regularly (57% of survey participants were not willing to pay a small increase in return for trimming vegetation more frequently and less severely). The preference was either to trim them heavily or remove them.

We will maintain our commitment to vegetation management practices that balance safety with affordability. We will continue to work with local government to ensure local interests are taken into consideration.



Residential customers are generally happy with our connection processes but remotely based customers feel connection costs are excessive. Commercial customers expect Powercor to be transparent and work to exact timelines.

We will automate our standard connections processes to make it easier, faster and cheaper for customers.

We will continuously explore ways to improve timeliness and quality of service to connect large customers. We will effectively communicate the time needed to develop the right solutions for complex connections.

Enable the connection of more renewable energy generation, particularly in solar and wind technology – this is a key regional priority.

Some customers have not been able to connect larger solar photovoltaic systems because of network limitations. Regional development associations see the connection of wind and solar energy as a priority for their areas and want us to be proactive in enabling these connections.

We are enabling the connection of several large wind farms in western Victoria during the upcoming five-year regulatory control period.

In addition, we are investing in technology to better control voltage levels so we can connect more rooftop solar panels.



Install more energy-efficient street lighting.

We are working with local councils to introduce new types of energy-efficient street lights and are involved in the Lighting the Regions project involving multiple councils across Victoria.

Speed of responsiveness is expected when issues occur, particularly issues relating to motor vehicle accidents and wind/weather related outages.

Our call centre and website provide channels for our customers to contact us. We currently provide outage information through our website and apps, and SMS notifications straight to customers' phones. We will look at ways to improve our communications on an ongoing basis.

A smart grid is a necessary initiative worthy of investment. It was generally felt that future needs would be best met with a smart grid to enable choices and flexibility, and take pressure off the existing network and traditional sources of power.

Powercor needs to be forward thinking rather than just upgrade infrastructure.

We will invest in the development of a smarter network by using advanced technologies that create efficiencies and improve reliability and safety.

We will investigate demand-side solutions to meet localised energy requirements during peak periods, and the application of new technologies such as batteries, cold storage and off-grid solutions.



Engage with us more effectively – you welcomed the opportunity to participate but want more information about issues.

We will consult on our future tariff structures as well as issues affecting customers' electricity supply and energy choices.

Greater access to smart meter data, via an online portal, would give you greater ability to manage electricity use and power bills. You wanted easy-to-access, easy-to-understand information.

We plan to invest in a customer relationship management system and online customer portal so customers can access their electricity usage data and manage their electricity bills.

You want flexibility and don't want to be disadvantaged by any changes to tariff structures. Different types of tariffs are confusing. There are concerns that locational tariffs may disadvantage some customers and there are conflicting views on maximum demand tariffs.

We are extending our engagement program by consulting on our future tariff structures.

We are considering a number of options, including rebates for lower energy use and tariffs for peak demand periods.



Stay engaged

The views and concerns of our customers and stakeholders have been vital to informing our future plans outlined in our Regulatory Proposal.

Thank you to all our customers and stakeholders who have engaged with us during the past two years through our various engagement activities including online surveys, interviews, focus groups, regional engagement forums or submissions to our Directions and Priorities Consultation Paper.

We've taken your views into consideration and have submitted our plans to the Australian Energy Regulator (AER) who will consider our Regulatory Proposal and will conduct a separate independent consultation on its contents. You can take part in this consultation and let the AER know whether you think we have the balance right between safety, reliability, growth and affordability. Our Talking Electricity website provides links to the AER website and will publish details of any public forums the AER is hosting.



Key areas of focus

The key programs of work included in our Regulatory Proposal, and the service areas they relate to, are:

- **Reducing bushfire risk** (protecting our customers and our network)
- **Replacing ageing assets to maintain cost-effective reliability**
- **A network to power growth** (growing with Victoria)
- **Building the network for the future**
- **Making it easy for our customers**

Reducing bushfire risk

Rural Victoria is one of the most bushfire-prone places in the world. Ensuring the safety of our people, customers and communities is our number one priority.

Our operating environment is challenging – our network is located in some of the most difficult, diverse and remote terrain in the state. A key consideration is the community safety risks posed by the environment in which our assets are located. The overall health and condition of our assets is an important contributor and we have well-developed preventative maintenance and replacement policies to minimise the risk, along with robust vegetation management practices and investment in new technologies.

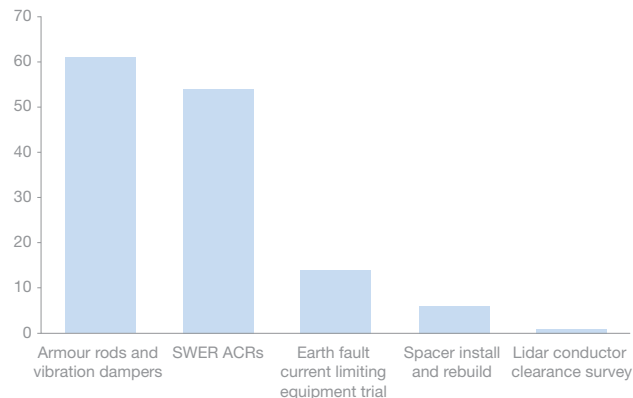
In the 2016–2020 regulatory control period we will continue installing armour rods and vibration dampers into our network to reduce the safety risk from vibration caused by wind. We will continue our program to install new generation electronic automatic circuit reclosers (ACRs) to single earth wire return (SWER) lines, improving safety.

In response to the Powerline Bushfire Safety Taskforce recommendations, we will install Rapid Earth Fault Current Limiters (RECFLs) at our zone substations in Woodend and Gisborne. This will enable us to determine the effectiveness of RECFLs in decreasing the likelihood of fire starts from conductor to earth faults in extreme, very high and high fire loss consequence areas.

Under the Victorian Government’s Powerline Replacement Fund, we will undertake around \$60 million in works to underground powerlines or replace them with insulated systems in the highest risk areas bounded by Ballarat, Maryborough, Bendigo and Gisborne.

This follows four undergrounding projects (valued at more than \$3.5 million) in the Otway Ranges region in 2014 and a further investment of around \$21 million in 15 projects in 2015, replacing 97km of bare open powerline with about 134km of underground cable.

Powercor Victorian Bushfires Royal Commission direct capital expenditure 2016–2020 by program (\$ million, real 2015)



Source: Powercor analysis

We seek to further minimise bushfire risk through vegetation management. Since 2010 we have been delivering a program of works, in conjunction with ESV, to maintain the required clearances between our powerlines and vegetation, both in high and low bushfire risk areas. We will continue to work closely with local councils on our planning and programs, and will continue to consult with them and the community on the requirements we must meet. We will also continue to work with local communities to balance safety with visual amenity; however we will not introduce more frequent pruning programs if it means customers’ bills will significantly increase.

Replacing ageing assets to maintain cost-effective reliability

We are committed to best practice asset management strategies to ensure the safe and reliable operation of our distribution networks, recognising that many factors affect reliability and that there are differences in how rural networks are run compared to urban networks.

We are committed to taking a targeted and cost-effective approach to the replacement and refurbishment of ageing assets. We monitor assets to assess their condition, only replacing them when it is needed to maintain reliability and security of supply. This internationally recognised risk management approach involves monitoring the 'health indices' of our strategic major plant items, such as transformers and high voltage circuit breakers, ensuring that the risk profile of this equipment is maintained during the upcoming regulatory control period.

Our monitoring program has found that we will need to replace a number of assets to ensure network reliability and safety are maintained. Asset failures can result in declining reliability, voltage related issues, restrictions on network usage and compromise employee, customer and community safety, particularly during heatwaves and storm activity.

We are forecasting to spend \$665 million on asset replacements to maintain quality and reliability of supply. This investment includes plans to replace transformers at the

Warrnambool, Winchelsea, Terang, Echuca, Robinvale and Charlton zone substations.

Our asset inspection program for poles and the cross-arms that support powerlines has identified the need for increases in replacement volumes, and this trend is expected to continue during the upcoming regulatory control period. We will continue a proactive program to replace ageing overhead lines in rural parts of our network. We anticipate that we will become responsible for customers' Private Overhead Electric Lines (POELs) and we will work to bring these assets up to the required standards across the network.

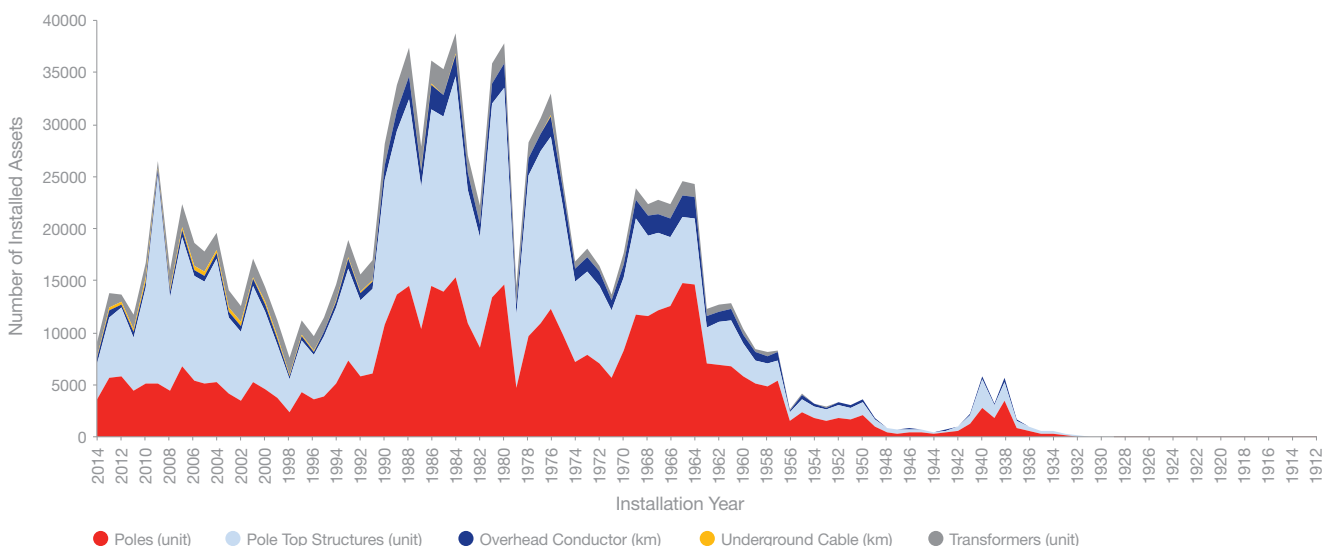
A network to power growth

To ensure we continue to support the growth and development of our businesses and communities, we plan to spend \$243 million on major capital works in high growth areas to meet future demand where it is needed most. We have established proven planning methodologies based on combining the analyses of growth trends in locations across our network with increases in demand as expressed by our business customers.

Melbourne's growing western corridor

There is a need to alleviate electricity demand at Keilor Terminal Station by building a new terminal station at Deer Park. We will connect our assets to this new terminal station and build a new Powercor zone substation at Truganina. This will allow us to shift load away from Keilor Terminal Station.

Powercor asset age profile



Source: Powercor analysis

Works, at a cost of around \$70 million, are needed so we can continue to meet growth in the north west of Melbourne. The construction of Truganina Zone Substation will address the forecast limits at the Laverton, Werribee, Laverton North, Sunshine and St Albans zone substations, electricity supply hubs that supply domestic, commercial and industrial customers in the western suburbs of Melbourne.

A new 66kV transformer is forecast for the Melton Zone Substation to address growth in the Melton and Bacchus Marsh areas including domestic, commercial, industrial and farming areas of Melton, Melton South, Melton West, Kurunjang, Rockbank and Brookfield.

Supporting a thriving agricultural sector in northern and south west Victoria

Additional capacity will be added to the network in and around the Mildura region to support irrigation utilised by almond, olive and potato growers in the region. We will install a new transformer at Merbein Zone Substation to address limitations in the Merbein and Mildura areas. Zone substations at Mildura and Merbein supply domestic and commercial customers in these towns and surrounding rural areas, including large vineyards.

We are supporting the expanding dairy industry in south west Victoria, increasing local capacity and reliability of supply through a number of powerline upgrades and major works at Warrnambool Zone Substation.

Powering growth in Victoria's largest regional city

Despite the decline in the manufacturing sector, growth in the greater Geelong region is amongst the highest in our network distribution area, fuelled predominantly by strong residential and commercial development.

An upgrade of two of the 66kV power transformers at the Geelong East Zone Substation and associated works are forecast to ensure supply remains available during periods of high electricity demand. The Geelong East Zone Substation supplies the domestic and commercial area of Geelong East, extending into surrounding rural areas, including backup for Waurm Ponds Zone Substation, which supplies part of the Surf Coast.

Areas south of Geelong, including the Surf Coast region, are experiencing strong residential growth, as evidenced by the major new

Armstrong Creek development which will accommodate 22,000 new homes when completed. The residential growth is being complemented by new commercial customers, including a hospital. The construction of a new zone substation at Torquay is needed to address this growth and support the Waurm Ponds Zone Substation which currently supplies Waurm Ponds, Grovedale, Belmont and Highton, as well as customers in the Surf Coast towns of Torquay, Jan Juc, Anglesea and Lorne.

Making new connections

We are forecasting to spend \$774 million to enable customers to connect to our network over the next regulatory control period.

A significant portion of this expenditure will be directly recovered from the connecting customers. Included in our connections forecast are those relating to the Victorian Government's bushfire-related initiatives such as the Powerline Replacement Fund projects. Connection expenditure is being driven by a number of large connections, including expansion in the dairy sector to support its expansion into the Asian market and a number of wind farm connections. We are working towards greater automation of simple connections and easier online forms, saving time and reducing costs for customers, retailers and registered electrical contractors. In response to customer and stakeholder feedback, we are currently reviewing our large customer connections process with a view to improving timeliness and the quality of our service.

Striking the right balance between investment and reliability

Feedback during our engagement research and consultation activities identified that many residential customers did not want to pay for reliability improvements; they did indicate an expectation that we should efficiently maintain the levels of reliability and safety. In contrast, large commercial customers and development associations want to see reliability maintained or even increased in some regional areas.

The Australian Energy Market Operator (AEMO) recently reviewed its customer reliability values which are used to define what customers are willing to pay for reliability. Powercor is obliged to use the AEMO Value of Customer Reliability (VCR) values when assessing proposed network investments. As a result of the new

VCR values which are lower than the previous values, we have deferred some capital expenditure projects that were earmarked for the 2016–2020 regulatory control period. This may have some impact on reliability across our network in the longer term.

Building the network for the future

Our role in enabling new technologies is expected to grow in coming years as customers adopt a wider range of ‘distributed energy resources’ including battery storage and electric vehicles. The emergence of the two-way network requires us to address new challenges, particularly as energy flows and quality of supply issues become more complex. As a result, we need to design more sophisticated network control and protection systems to ensure a safe and reliable delivery of power.

In the 2016–2020 regulatory control period we are proposing to enhance our existing technology to better control voltage levels on our network and manage the connection of more embedded generation such as solar panels. Renewable generation is growing rapidly. There are more than 85,000 customers with solar panels connected to our network and this is increasing every year. We are also connecting several large wind farms to the network within the upcoming five-year period.

We are also looking to the future and are conducting a battery storage trial in the Ballarat region to store energy closer to our customers and lower the peak demand that the upstream network has to supply, reducing the stress on the local network.

Managing our network smarter

With our smart meter rollout now complete, the technology and smart meter data now available to us has allowed us to implement smarter ways of managing our network. This evolution of technology will continue over the upcoming five-year period, and we are planning to invest in better network control, better data analytics and innovative ways to manage our network to reduce costs and improve value to our customers.

We intend to use information that comes from smart meters to help us operate the network more efficiently and plan better for the future. Enhancements proposed for the upcoming regulatory control period include improved capacity control during times of high electricity demand, such as periods of hot weather.

Being able to develop this technology will also allow us to better balance load on the existing low-voltage network and defer some expenditure on network growth into the future.

As we integrate systems and provide better services to our customers, we need to ensure the security of the data being transmitted through our systems and network. Further, our information technology and operating systems may be the target of individuals or organisations seeking to cause disruption to the electricity network, hence, we are planning to introduce greater levels of information technology security.

Making it easy for our customers

Access to usage data from smart meters was a common theme in customer and stakeholder feedback throughout our stakeholder engagement activities. One of the ways we plan to address this feedback is to implement systems to better engage with our customers, understand their individual preferences and enhance access to their data through an automated customer portal.

Coupled with investment in a customer relationship management system, we will be better able to respond to customer requests, work with them and their electricity retailers and other service providers to reduce power bills further, as well as give easier access to new tariffs that incentivise customers to help us manage our network on high demand days.

These initiatives will build on tools implemented in the current regulatory control period, such as our new website and outage applications for Apple and Android mobile phones, which deliver the information and services customers want in the way they prefer to engage with us.

Our revenue requirement

Our regulated revenue is the amount of money we need to safely and efficiently manage and operate our network during the 2016–2020 regulatory control period and continue to deliver an affordable and valued service to our customers.

As a regulated business, the amount of revenue that we can recover from our customers is assessed and determined by the Australian Energy Regulator (AER) every five years in accordance with the National Electricity Rules (Rules).

We recover our allowed revenue through network tariffs. Network tariffs are not subject to the current determination and will be set by the AER annual pricing proposal process later in 2015.

National Electricity Objective

The Rules require the AER, in making a determination, to apply the National Electricity Objective (NEO) which requires the AER to: promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to (a) price, quality, safety, reliability and security of supply of electricity; and (b) the reliability, safety and security of the national electricity system.

In forecasting our revenue requirement, we carefully considered the investments needed across the network in terms of balancing safety, reliability and growth. We also incorporated valuable feedback from our customers and stakeholders to ensure that our investment plans reflect the needs and expectations of the communities in which we operate.

In the 2016–2020 regulatory control period we are seeking approval for \$3,716 million in distribution and metering revenue compared to \$3,250 million for the current regulatory control period.

The increase in our revenue requirement, from the current regulatory control period, is a consequence of:

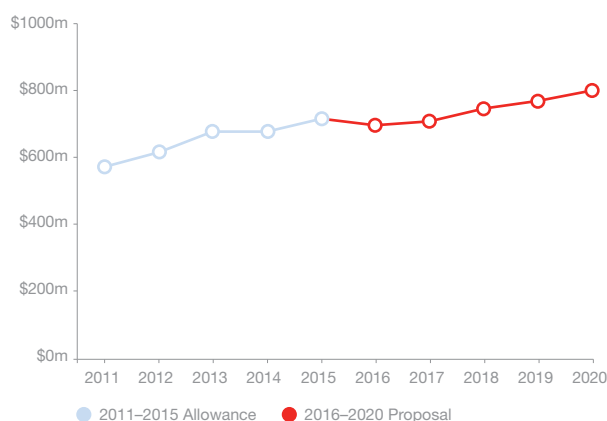
- growth in our regulated asset base during the current period as a result of the capital investments we have made in our electricity distribution network. These investments supported growth in areas of our network including western Melbourne, greater Geelong, Gisborne and Mildura, and on maintenance activities to ensure the ongoing reliability of supply
- the \$2,061 million dollar investment in capital expenditure we will make during the upcoming regulatory control period is based on the following priorities:
 - investment in new assets to support residential growth in western Melbourne and Geelong/Surf Coast regions and regional growth in north and south west Victoria and replacement of ageing assets

- increased legislative and compliance obligations, particularly in respect to bushfire mitigation compliance following Black Saturday and the Victorian Bushfires Royal Commission
- investment in technology that allows us to better manage our assets and utilise network capacity so as to defer investments and improve the affordability of network services
- investment in initiatives that make it easier for our customers to connect to our network and access the information that they need to make better choices about their electricity usage
- increases in our operating expenditure, as a result of the growth of our network, are driven by increasing customer numbers and growth in demand
- a change in the accounting treatment of a portion of our corporate overheads which more accurately reflects when the costs are incurred rather than being incorporated into our regulatory asset base and depreciated over time. This change in accounting treatment has a one-off impact on our revenue in the 2016–2020 regulatory control period, but will deliver more affordable outcomes for our customers in the long term.

These increases in our revenue requirement are partially offset by:

- a reduction in metering costs as a result of the successful completion of our smart meter program
- lower financing costs as a result of lower interest rates.

Powercor revenue requirement (2015 dollars)



Source: Powercor analysis

Benefits and risks

We have listened to our customers, taken a long-term view in a changing world, and developed prudent and efficient solutions that deliver key benefits and address key risks. We are confident that our Regulatory Proposal strikes the right balance in meeting the long-term safety, reliability and affordability requirements of our customers.

Benefits

Based on the proposed investments outlined in our Regulatory Proposal, by 2020, we will have delivered the following benefits to our customers and stakeholders:

- **Maintenance of the safety of our network assets**
- **Stable underlying network reliability consistent with published AEMO Value of Customer Reliability (VCR) values**
- **Securing of network supply in strong growth corridors across Western Melbourne, Geelong/Surf Coast and north west Victoria**
- **Timely and efficient network connections**
- **A more adaptable network that meets supply quality standards and can accommodate new customer energy technologies**
- **Implementation of innovative technologies through automation of our network to make full use of smart meter technology to enable faster responses to faults and better monitoring of the condition of our assets**
- **Prudent and efficient management of bushfire risks in line with Victorian Government, Energy Safe Victoria, and community expectations**
- **More accurate, timely and secure operational information for managing the network**
- **More accurate information for AER benchmarking**

Risks

We are confident that our Regulatory Proposal addresses the following risks for our customers and stakeholders:

- **Level of service or reliability not meeting customer expectations**
Our Regulatory Proposal is focused on delivering a safe, reliable electricity supply at an affordable price, reflecting the expectations of customers who took part in the AEMO VCR study.
- **Under or overinvestment in our network leading to reduced reliability or higher prices**
Our Regulatory Proposal strikes the correct balance between both the short and long term needs of customers. We will continue to prudently and efficiently manage the network over the upcoming regulatory control period.
- **Less than optimal maintenance of the network, impacting the reliability and longevity of assets**
We will continue to maintain our network in accordance with good electricity industry practice and applicable regulatory instruments.
- **Not adequately addressing increases in capacity in some areas**
We have taken a targeted approach to investment in areas where we can see clear drivers for growth or where local capacity has reached its limit. Our assessment is based on granular forecasts and local knowledge of our network and our customers.
- **Customers suffering poor supply issues or not able to connect solar panels**
We propose to improve the monitoring of the low voltage network to enable increased penetration of customer energy technologies whilst maintaining power quality.
- **Customers not getting accessible and timely information about their electricity use**
Our proposed investments in business systems are designed to progressively deliver more targeted usage information to our customers.
- **Underinvestment may occur if the business does not obtain a reasonable rate of return**
We have proposed a return on equity commensurate with industry risks and the changing energy market.
- **Unexpected compliance or regulatory requirements may increase our costs**
Wherever practical, we have tried to anticipate regulatory changes and allow for them in our Regulatory Proposal. However, in certain circumstances, it may be necessary for us to seek the pass-through of certain costs if they are not included in the approved revenue allowance.
- **The introduction of metering contestability in Victoria from 1 January 2017 may see the erosion of some of the benefits achieved to date**
We have successfully implemented our smart meter program and are rolling out a number of benefits for customers. We will continue to work hard to inform decision makers of the specifications needed to retain these benefits.

Let's keep talking

We encourage you to take part in upcoming discussions on how we will balance infrastructure investment with meeting the challenge of delivering electricity on days of high electricity demand. Part of the solution is how we structure our tariffs and we will be seeking your views during 2015.

To keep up-to-date with this consultation, and key Powercor initiatives of interest to customers and stakeholders, visit www.talkingelectricity.com.au and consider subscribing to our electronic newsletter.

For more information about the approach taken by the Australian Energy Regulator (AER) to assessing our Regulatory Proposal and its decision making processes, visit www.aer.gov.au.