



Keeping
perspective

While we prepare for the future we're keeping perspective on what's important

Number of
customers
in 2017

1,13

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CitiPower and Powercor are the most efficient and reliable urban and rural electricity distribution networks in the country. We employ nearly 2,000 people in 15 offices and depots in Melbourne and across central and western Victoria.



■ CitiPower
■ Powercor

4,072

Message from the CEO.

It is my pleasure to present our Annual Review for 2017. I am pleased to report that CitiPower and Powercor continued to perform well throughout the year, maintaining our commitment to providing customers with a safe, reliable and importantly, affordable electricity supply.



In 2017 we delivered 99.99% and 99.97% reliability for CitiPower and Powercor customers respectively, driven by a continued focus on robust asset management and maintenance programs as well as responsible and targeted investment in upgrading and replacing our assets.

Our networks are the most cost-efficient distributors in the country, with the Australian Energy Regulator's 2017 Annual Benchmarking Report ranking Powercor and CitiPower first and second for operating expenditure productivity, and fourth and first for total productivity. The report also showed that Powercor is the highest utilised network in the National Energy Market at 68 per cent, while CitiPower's utilisation is amongst the highest utilised urban networks at 53 per cent.

We anticipate that utilisation of our networks will remain strong given new connections grew by approximately 2 per cent and customers increased by 23,099 in 2017.

These outcomes clearly demonstrate that our networks are as relevant today to customers as they have ever been.

While this may be the case, we are focused on planning for the future while maintaining our perspective on the things that matter most to our customers – safety, reliability and affordability.

With this in mind we are integrating the most cost-effective processes, policies and technologies to deliver a more intelligent and responsive network that delivers better, and equitable, customer and community outcomes while reducing average long-term electricity network charges to customers. This will ensure our services continue to be the most commercially competitive solution in respect to electricity distribution.

We have started planning for 2021 to 2025, our next regulatory period, with preparation focused on incorporating into operations how our customers want to generate, store and use energy and how they evaluate the value of

our services.

The perspectives that our customers and stakeholders share with us today about how they value and prioritise energy for themselves and their communities, as well as their role in the new energy markets provides the foundations of how we think about planning and managing a more flexible network that is the backbone of enabling customer choice, preference and the utilization of new technologies.

I would like to take this opportunity to thank our employees and partners for their contribution and support throughout the past year, and together we look forward to working with our customers, stakeholders and communities as we continue to shape Australia's energy future.



Tim Rourke
Chief Executive Officer

Chief Executive Officer
Tim Rourke and Linesman,
Codie Wills visit Yaloak
Wind Farm.


Our track record.

Every day we deliver electricity to more than one million customers.

CitiPower and Powercor are two of Victoria's five privately owned electricity distributors. We own and manage the 'poles and wires' that deliver electricity to more than 1.13 million customers in Victoria. Servicing a population of nearly two million Victorians, we are responsible for the quality and reliability of electricity delivered to our customers within these networks, that make up 64% of the state.

Delivering a safe and reliable electricity supply underpins economic development and prosperity and in this context, our business makes a substantial contribution to Victoria's economic development, powering existing businesses and growth across the communities in which we operate.

We employ nearly 2,000 people in 15 offices and depots in Melbourne and across central and western Victoria – in many areas we are a major employer creating jobs for people who want to live and work in regional Victoria.



Werribee, a growth corridor in Melbourne's west, is home to many new families and developments.

Customer numbers

✓ **1,134,072**

across CitiPower and Powercor with 23,099 new customers in 2017

Text notifications sent to customers

✓ **2.5_M**

2.5 million notifications sent in 2017 to inform our customers of outages

Electricity distributed

✓ **16,689_{GWh}**

across the CitiPower and Powercor networks

Distribution revenue

✓ **\$903_M**

\$903.3 million in 2017

Renewable generation capacity

✓ **194_{MW}**

194MW of renewable generation capacity connected to the CitiPower and Powercor networks

Customer-installed solar systems

✓ **10,232**

across the CitiPower and Powercor networks

Regulated asset base

✓ **\$5.9_B**

\$5,896.6 million in 2017

Network area

✓ **145,808_{KM²}**

across the CitiPower and Powercor networks

Network route line length

✓ **71,249_{KM}**

across the CitiPower and Powercor networks

Distribution transformers

✓ **89,742**

across the CitiPower and Powercor networks

Poles

✓ **630,008**

in service across the CitiPower and Powercor networks

Network availability

✓ **99.99%**

for CitiPower network

✓ **99.97%**

for Powercor network

Delivering three new depots in regional Victoria.

During 2017, Powercor opened three new depots in Mildura, Cobram and Maryborough. As a significant regional employer, Powercor consistently demonstrates strong commitment to the communities it serves.

The Maryborough depot employs thirteen people to service the Maryborough and Castlemaine areas including substations, while the Cobram depot employs nine people to service the Cobram East and Numurkah Zone Substations.


And as a result of the opening of Mildura's new depot on Benetock Avenue, our team of fifty strong employees are delivering more line maintenance, supply and asset upgrades, new connections and renewable energy projects than ever before.



Delivering on our commitments

At CitiPower and Powercor we understand that our customers want a safe, reliable and affordable electricity supply. Our commitment to this purpose is central to everything we do.

Throughout 2017 we continued to deliver on our commitment with a focus on delivering better outcomes every day for our customers, our people and our communities.



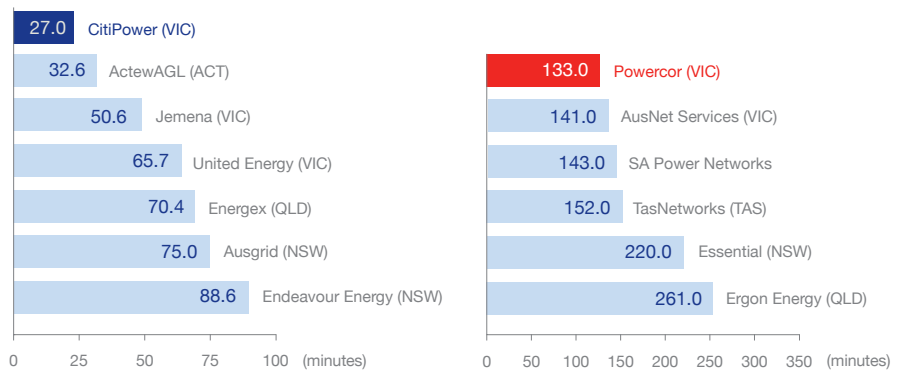
The Melbourne Cricket Ground, home to Australian Rules Football, is a world-class sporting arena.

Performance overview

Reliability

In 2017 we continued to maintain our high standards of network reliability, achieving availability of 99.99% for CitiPower customers and 99.97% for Powercor customers. Last year we invested more than \$460 million in upgrading and replacing assets across our networks. This investment, coupled with our robust asset management and maintenance programs ensures we maintain our strong reliability performance. Importantly we did this without increasing household distribution charges from 2016 levels.

Urban and rural distributors whole of network unplanned SAIDI average 2006–2017 (after exclusions)



Source: Victoria Power Networks

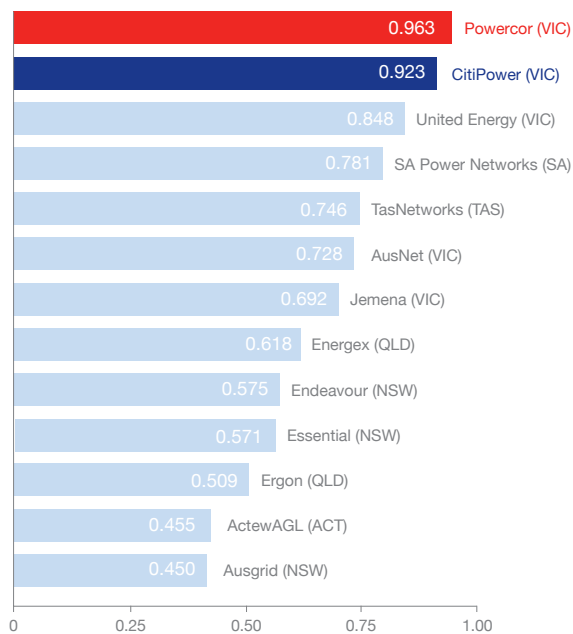
Efficient network management

CitiPower and Powercor continue to be among the most cost-efficient distributors in Australia.

In its 2017 Annual Benchmarking Report, the Australian Energy Regulator (AER) ranked Powercor and CitiPower **first** and **second** for operating expenditure productivity, and fourth and first for total productivity.

As part of the 2017 Annual Benchmarking Report, the AER also released 2016 network utilisation data which showed that Powercor is the highest utilised network in the national energy market at 68 per cent, while CitiPower's utilisation is amongst the highest utilised urban networks at 53 per cent. With 23,099 new connections and consumption growing by approximately 2 per cent last year, utilisation across both networks is expected to increase in 2018.

Operating expenditure productivity index (2006–2017)



Source: AER Annual benchmarking report, Electricity distribution network service providers, November 2017

We are committed to finding new ways to do what we do better and to improve the performance of our business while focusing on attempting to continuously improve the safety of our people, customers and the communities in which they live.

Affordable pricing outcomes

Our customers pay amongst the lowest distribution network costs in Australia.

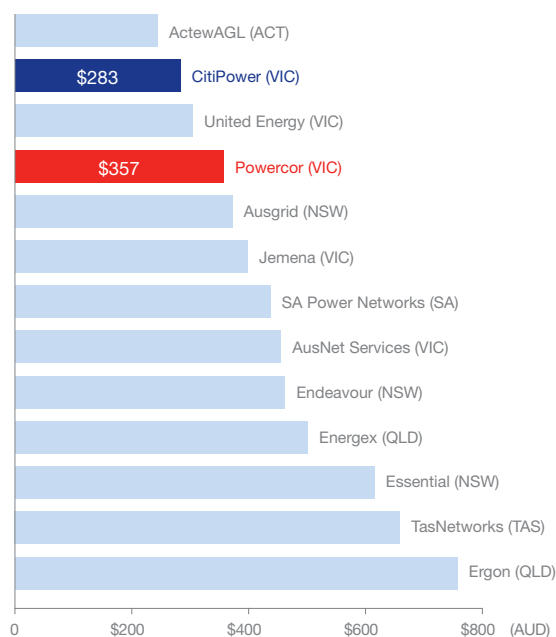
In 2017, distribution network charges for a typical **CitiPower residential customer were \$283 per annum or 23 per cent of the total electricity bill, and for Powercor \$357 per annum or 26 per cent of the total electricity bill.**

Compared to 2016, our 2017 customers paid 9% less in distribution charges across CitiPower and Powercor respectively.

In 2017, CitiPower was the second most affordable distribution network in Australia, and Powercor the most affordable rural network in Australia.

In 2017 metering charges for a CitiPower residential customer reduced by 10 per cent to \$85 per annum, while charges for Powercor customers reduced by 7 per cent to \$88 per annum.

Distribution charge per household for the same amount of usage



Source: CitiPower and Powercor analysis 2017

Never compromising on safety

At CitiPower and Powercor, safety is our number one priority.

Electricity distribution is inherently hazardous due to the nature, size and location of our assets. We are therefore committed to achieving the highest standards of safety for our customers, employees, contractors and the community.

We have in place a comprehensive team and associated structures for managing and mitigating health and safety-related risks, and we maintain a Health and Safety Management System that is externally certified to AS 4801 (Occupational Health and Safety Management Systems Standard).

Our health and safety priorities are focused on four key areas:

1. Ensuring we have a fair and just safety culture;
2. Continuously improving systems and processes that help us better manage risks and eliminate incidents that have the potential to cause serious injury;
3. Improving the health and wellbeing of our people, both physically and mentally; and
4. Responsibly and safely operating our network.

Growing awareness for men's health

With a dedicated support crew, 67 employees grew their moustaches across 13 depots and offices as part of Movember, a global campaign with dedicated programs focused on mental health, prostate and testicular cancer as well as general health and wellbeing.

Nearly \$28,000 was raised through sponsorship and numerous fundraising activities, which included discussion on men's health and keynote speaker sessions.

Our performance

In 2017, the business met all major health and safety key performance indicators (KPIs).

We achieved a score of 89 per cent for the Safety Leadership KPI, exceeding the stretch target of 85 per cent. This indicator measured meaningful interactions held between leaders and the wider workforce, including contractors.

For the Management System Performance Index, we also met the stretch target, achieving a score of 85 per cent. This index considers performance against health and safety indicators including timely close-out of actions, improving the performance of significant risk controls and reducing driving accidents related to inattention.

Our performance in relation to significant safety incidents has continued to improve, with three significant incidents recorded in 2017, compared to 13 in 2013.



Key safety programs and initiatives

In 2017, the business delivered a range of safety programs and initiatives. We:

- **Launched Cintellate**, our new Health, Safety & Environment (HSE) reporting and management system. Cintellate gives management enhanced oversight of their team's HSE compliance obligations and enables employees to quickly and easily raise incidents and hazards, and conduct audits.
- **Improved our incident and injury reporting.** Cintellate is providing better visibility around workplace injuries, enabling us to respond more effectively to particular types of incidents. For example, a high incidence of hand-related injuries in the first half of the year led to a Hand Safety Awareness Program. The program educated our employees about the specific protection provided by different glove types to reinforce the importance of their use in injury prevention. The program resulted in a substantial reduction in hand injuries, from 18 in the first half of the year (January to June) to nine in the second half of the year (July to December).
- **Launched our new Health and Safety Hub**, giving our people better access to important information about safety, news and key initiatives while building on our safety culture across the business.
- **Updated our Personal Protective Equipment and Clothing standards** and requirements and developed and launched Fatigue Management Procedures and Guidelines, which included a new Fatigue Risk Assessment.
- **Began using the 5S methodology in our depots** (Sort, Set in order, Shine, Standardise, Sustain) to help improve efficiency, productivity and workplace culture by encouraging crews to look at their working environment, engage in problem solving and consider how the workplace operates more efficiently and safely.

Health and wellbeing

Through targeted educational and intervention programs we aim to improve the physical and mental health of our people, to help us reduce injuries and illness.

In 2017, we delivered a range of health and wellbeing programs designed to promote good physical and mental health among our workforce.

These initiatives ranged from physical activity programs such as stepathlons, Corporate Games, pilates and yoga through to a range of information sessions on nutrition, hydration and sleep. We also provided skin checks, prostate screening, flu vaccinations, support to help people quit smoking, as well as workplace and home office ergonomic assessments.

We continued to build on our mental health strategy which has been created around three pillars: awareness, prevention and early intervention. We delivered this through a range of practical and accessible programs including:

- A well-established peer-to-peer support program.
- Our Employee Assistance Program.
- Mindfulness programs to help our people manage stress, anxiety and improve their overall wellbeing.
- Mental health awareness sessions for our people and leaders.
- Active support and promotion of public awareness days such as R U OK Day and Mental Health Awareness Week.

Participation in our health and wellbeing programs are strong, and we will continue to build our health and wellbeing programs to meet the needs of our people and ensure we create a healthy and safe work environment.



Prostmate – Employees take initiative on prostate testing

As part of our Health and Wellbeing Program we launched Prostmate, which offers male employees a free and confidential prostate-specific antigen blood test and skin check, both commonly used to detect possible signs of prostate cancer.

With men making up 82 per cent of our workforce, prostate cancer presents a real risk. The program was targeted at employees aged 45 years and over, many of whom usually wouldn't visit a doctor.

More than 675 men chose to participate in the CitiPower and Powercor program, the first of its type to be run by an Australian company.

One-on-one sessions were scheduled with a doctor to provide employees with results and general information sessions were held across the business. Fourteen employees were referred for immediate medical consultation and three required surgery to remove the prostate.

Greg Wood, Design Delivery Coordinator at the Geelong depot, was already scheduled for a prostate MRI the day the blood tests were being done, however he still undertook the skin check.

"When it was time for me to get the result I was semi-prepared, but the urologist dropped a bombshell when he delivered the news that I had stage 2 prostate cancer, and a decision on treatment options had to be made," said Greg.

"The thought of having prostate cancer was scary and daunting for me and my family, and my workgroup was shocked when I told them what lay ahead.

"The comforting thing for me and my family was the knowledge that because it was caught early, it was treatable, and surgery would provide a good outcome.

"After surgery I had 10 weeks off work and was unable to do anything. I was so bored I downloaded Netflix, I couldn't even mow the lawn!"

Greg, who is now in remission, has a message for all fellow male CitiPower and Powercor colleagues.

"Don't think about it, just do it – take the free test on offer and catch it early. If you're already feeling sick, it's too late. I am one of the lucky ones; what could have been a bad story has turned out to be a good one," he said.

Responsible and safe operations

Responsible and safe management of our network

The overall health and condition of our assets is an important contributor to the safe operation of our network, and we have well-developed preventative maintenance and replacement policies to minimise risks.

Through our exploration of new technologies, we have introduced a non-destructive wood pole inspection tool called 'Woodscan' to enhance our traditional 'drill and dig' method when determining the strength of our timber poles. This technology means we can more accurately identify unsafe poles before they fail, and also avoids replacing healthy poles unnecessarily. Three per cent of poles that were tested using Woodscan were re-prioritised for urgent replacement, and 50 per cent were returned to service, avoiding premature replacement.

In response to an increase in the number of network switching incidents, which involves taking a line off service or putting it back onto service due to maintenance activity or a fault, an independent review was undertaken by KMPG in mid-2017. The review assessed our network operating activities against global High Reliability Organisations such as Naval flight operations, air traffic control and nuclear power generation. It identified the relevant gaps, risks and opportunities that we face in comparison to these organisations.

We identified 45 initiatives across six strategic areas aimed at enhancing operational and corporate risk management. This resulted in the creation of Project Switch, a program focused on our people, systems, communication, training and standards to achieve sustained reductions in the frequency and severity of incidents.

Immediate actions to reduce our risk were undertaken in December 2017, including the delivery of the Switch On to Operating Excellence program at all depots. Project Switch will continue into 2018.

Bushfire mitigation

Rural Victoria is one of the most bushfire prone places in the world and given the hazardous nature of our industry, bushfire mitigation continues to be a key priority for our business with many of our programs set against the backdrop of the recommendations delivered by the Victorian Bushfires Royal Commission.

In 2017 we continued to improve our approach to bushfire mitigation and risk reduction as we undertook extensive works to minimise the risk of bushfires from our assets. This included the first zone substations to be fitted with Rapid Earth Fault Current Limiting (REFCL) devices that dramatically reduce the chance of fire from our conductors.

Leading-edge technology reducing bushfire risk

Powercor is installing leading-edge technology across its electricity network as part of a Victorian Government funded bushfire safety program to reduce the likelihood of powerline-related bushfires.

The technology, known as Rapid Earth Fault Current Limiter (REFCL), will be fitted in 22 substations within high bushfire risk areas at a cost of more than \$250 million over the next five years.

After extensive testing to ensure the device could operate efficiently, we installed our first two REFCLs at our Gisborne and Woodend substations in 2017 at a cost of \$16 million. Another six will be completed in 2018.

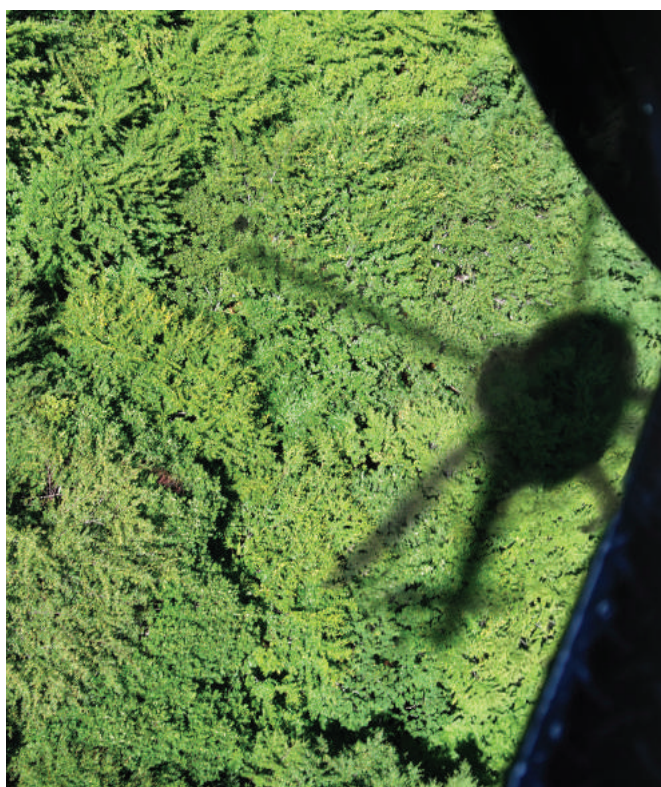
"A REFCL is a type of electricity network protection device that responds to certain types of powerline faults, for example a tree falling on a powerline," said Andrew Bailey, REFCL Technical Director.

"It detects and cuts the energy flow within milliseconds on the affected line, helping to reduce the possibility of a fire being started, and then also uses the remaining two powerlines to maintain a continuous power flow, to reduce interruption to customers' power supply."

Powercor, along with the other Victorian distribution companies, is the first in the world to use this technology for the reduction of bushfire risk.

"It is an exciting and challenging project, where we need to pioneer the use of REFCL technology to a performance standard that has not been achieved anywhere else in the world.

"This work is putting us in a leading position to protect our communities from powerline-related bushfires and reduce the risk to people in our service area," he added.



Seeing our vegetation management in a new light

In the summer of 2017, Powercor used a state-of-the-art aerial survey to take scans of vegetation across its service area, in readiness for cutting during the winter months.

The Light Detection and Ranging survey, known as LiDAR, involves the use of laser sensors mounted on a helicopter or aeroplane to measure the distances between the ground, powerlines and surrounding vegetation, with accuracy down to 10 centimetres.

“LiDAR technology has been a big improvement on our traditional ground-based

inspection as it is much more accurate and gets across our huge network area a lot faster,” said Wayne Evans, Vegetation Manager.

“In 2017 we used it to survey 40,000 kilometres of vegetation, of which we then went on to clear over 65,000 spans of vegetation.

“We place critical importance on ensuring sufficient vegetation clearance is maintained around our powerlines, so we can reduce the risk to our local communities from potential fires,” he added.

We also replaced 250 kilometres of overhead bare lines with underground cables, which reduces fire risk from these lines to effectively zero. This was completed at 27 sites across western Victoria at a total cost of more than \$60 million.

We installed 197,000 armour rods and vibration dampers on our lines in hazardous bushfire risk areas, and 17,000 in low bushfire risk areas at a cost of over \$78 million. These devices reduce the likelihood of fires starting from lines breaking due to wind vibration. In 2018 we will increase the installation of automatic circuit reclosers in hazardous bushfire risk areas, which will help us to reduce the chance of fires on Total Fire Ban days by enabling the control room to prevent the re-energising of a line when there might be a fault which could lead to a fire.

Our approach to tree cutting was intensified, with over 65,000 spans cleared – the most we have ever completed in a year. We also significantly improved our vegetation inspection method, moving from a ground-based program to laser sensors on aeroplanes and helicopters. These improvements are part of our ongoing commitment to

reducing fire risk through optimising our vegetation management initiatives.

Environment performance and delivery against commitments

CitiPower and Powercor have implemented comprehensive structures for managing environmental impacts and risks. Compliance with environmental legislation and regulation is viewed as a minimum requirement, and we are committed to limiting where ever possible our environmental impact.

Assessment of potential environmental risks and impacts is embedded operationally within our business as part of regular activities, and is overseen by the Health, Safety & Environment (HSE) Group.

The HSE Governance Committee provides guidance and direction in relation to environmental issues, while the Environment & Sustainability team provides specialist advice and ensures employees are aware of environmental issues relevant to their roles.

In 2017 we developed our Sustainability Framework which outlines our approach to sustainability, including principles, objectives and metrics by which we can evaluate our initiatives and current

practices. It also outlines the key initiatives that are driving improved sustainability outcomes for our business, our communities and our customers over the long term.

In 2017, the business invested in programs to drive sustainability and mitigate and improve the management of environmental risks. We trialled new technology to improve the protection of water run-off to storm water and improved our environmental performance monitoring and data capture through the supply chain.

Key environmental performance measures included:

- Engaging Greenfleet to plant approximately 7,000 native trees on behalf of CitiPower and Powercor.
- Recycling more than 300 tonnes of scrap metal.
- Diverting more than 10 per cent of total waste from landfill.
- Reducing electricity usage by 33 per cent since 2013 by installing solar panels across our larger depots.

Investing in our people

Apprenticeships and trainee programs

In 2017 CitiPower and Powercor welcomed 13 new apprentices into the business, which for the first time, included five female apprentices. Since 2001, CitiPower and Powercor have trained 348 apprentices and trainees, as well as 69 graduates through our two-year graduate engineering program.

To attract women to the field of electrical engineering, the business also created the Women in Electrical Engineering scholarship. We awarded three scholarships, with recipients receiving support in their final two years of study, an assigned mentor from within our business, and 12 weeks of vacation work experience before their final year of study.

Diversity and inclusion

In its first full year of operation, the Diversity and Inclusion Working Group made significant progress, focusing on the key areas of gender, generation and identity. We:

- Launched the Women in Power Network, designed to connect women across the business by creating a supportive, inclusive environment that advocates for and empowers all to realise their full potential.
- Conducted an Employee Identity Survey to better understand people's experiences and opinions with respect to ethnicity and identity in the business.
- Held generational focus groups and workshops to better appreciate and leverage the unique values, expectations and skills that each generation brings to our business.
- Ran cultural events, including Diwali Festival of Lights, Lunar New Year, International Women's Day, National Harmony Day and NAIDOC Week.
- Implemented a Family and Domestic Violence Policy to provide employees affected with support and information on confidential counselling.
- Updated our flexible working arrangements, ensuring that we continue to create a workplace that attracts and retains talent and reflects the modern workplace.



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New faces proof of our investment for the future

CitiPower and Powercor is the largest employer of apprentices amongst Victorian distribution businesses.

In 2017 we welcomed five female apprentices for the first time into our business, taking on roles as cable jointers, electrical fitters and lineworkers.

With an ageing workforce, the business has invested in ensuring our apprentices are well trained, work safely and are competent to take over from those nearing retirement. The investment is paying off, with past apprentices successfully making their way into leadership positions.

Reverse mentoring has become common across our workforce, with the younger, tech-savvy generation coaching the older generation in the transition from old to new methods of work.

Since 2001, we have trained 348 apprentices and trainees, as well as 69 graduates through our three-year graduate engineering program.

Emily Pateno is a second year underground cable jointer at Ardeer.

"It's so easy to get up in the morning when you love your job," said Emily.

"Within a couple of weeks of starting my apprenticeship I realised with the support that I have behind me, I can achieve anything I set my mind to here at Powercor.

"The business puts everything in place to ensure we are the best we can be – the way they teach us, the tools and equipment they provide and the time and effort they put into us.

"Apprentices at Powercor are incredibly lucky, it's a very exciting place to be," added Emily.

Leadership and training

Our people are our most important asset. As the energy industry continues to evolve, the capability and behaviours of our workforce are critical to our success. In 2017 we continued to invest in building the skills and capabilities of our people. We:

- Ran 69 development programs for over 300 of our managers and leaders to develop both strategic and operational skills. This included partnering with the Melbourne Business School to run a nine-month strategic leadership program and launching a new program for 20 of our emerging leaders.
- Seconded two employees to Wales & West Utilities in the UK, a business in the CK Group of companies, on a 12 month talent exchange.
- Launched Career Central, an online portal to support employees and managers with career conversations, development planning and skills assessments. This also included iLearn Central, a cloud-based platform with content including videos, webcasts and book reviews.

0% of apprentices inducted into our business in 2017 were female




Making it easy for our customers

We are focused on providing our customers with a high standard of customer service. Excellence in customer service underpins our vision and in 2017 we continued to focus on making it easy for our customers.

We regularly survey our customers seeking their feedback on how we can improve our services, and we consult on business and policy issues through our Customer Consultative Committee meetings. Our Powerful Customer Service program is focused on listening to our customers and taking responsibility for their satisfaction by meeting our commitments and ensuring our people follow through to resolve customer complaints.

In 2017 CitiPower recorded its highest ever customer satisfaction score at 85 per cent, while Powercor's customer satisfaction was 87 per cent which equals its previous best ever performance.

And for the fifth consecutive year, we were the two top performing distribution networks in terms of the lowest rate of complaints to the Energy and Water Ombudsman among Victorian distributors.

A woman with dark hair, wearing a white sleeveless top and blue jeans, is sitting on a brown couch. She is holding a tablet computer and looking at it with a smile. The room is brightly lit by sunlight coming through large windows in the background. A purple blanket is draped over the couch in the foreground.

Making it easy for our customers

Emily,
CitiPower customer.

Customer campaigns and launch of new portals

In 2017 we built on our digital capability with the launch of mySupply, an online tool for customers to help them upgrade and augment their electricity supply. Customers use the online tool and quick calculator to estimate costs and submit applications for works, including extending the network into new estates and for large solar connections.

The benefits of mySupply include allowing customers to gain 'ballpark' cost estimates, simplifying the application process, driving back office efficiency by reducing customer turnaround times and providing a more traceable service.

In 2017 we continued to develop myEnergy, an online tool which allows customers to take control of their electricity bills. More than 35,000

customers have registered for myEnergy and can see how their home or business uses electricity over a day, week, month, season or year. This personalised data can help them find the best electricity retail offer using the Victorian Energy Compare website.

In 2017 we eliminated all paper based connections for Registered Electrical Contractors (RECs), moving them to eConnect, our online portal. We also offered a Fast Track option to our large-scale customers. Fast Track reduces the registration, design, scheduling and construction time for projects with critical timelines for achieving electricity connection.

We also released a public lighting online fault reporting tool which enables anyone, anywhere with a mobile device to use an interactive map to report a streetlight that needs fixing. The tool also allows users to stay informed about when the light they reported is fixed.

To improve our response to connection related phone enquires, we introduced an Interactive Voice Response (IVR) service on our Connections Hotline. The new IVR capability helps us with answer rates and allows direct access to connections, which has helped to increase satisfaction rates for electricians, retailers and customers.

In attempting to improve our services to life support customers we changed the way we notify them about planned maintenance, by going above and beyond the minimum regulatory obligations, and sending a notification to their homes using express post. The notifications can be tracked to ensure delivery, and where possible, follow-up phone calls are also made to ensure customers are aware of the interruption, and have a plan in place to ensure they are not adversely affected.

35,0



eConnect online applications portal

eConnect is the online applications portal for CitiPower and Powercor Registered Electrical Contractors (RECs). It integrates 16 systems from across our business and is now the single platform for all our connections processes.

According to Brendan Bloore, General Manager Customer Services, the platform is a ground-breaking project for CitiPower and Powercor.

“eConnect is a great example of how we are leading the way in making it easier for our customers to get connected.”

“Although we’ve had some challenges, we believe the fundamental shift from paper-based connection applications to an online capability give us the opportunity to improve our responsiveness, reduce cycle times and improve the overall customer experience.”

Since its inception, CitiPower and Powercor have been averaging 3,500 applications each month from RECs.

John Cutler, Managing Director of Keemin Energy Solutions, has been using eConnect in his business.

“I found eConnect difficult to use in the beginning, but since receiving support from Powercor to get it up and running it has been a breath of fresh air.

“The best thing about eConnect is it takes the retailer out of the process, things happen a lot quicker and there are no issues with loss of paperwork.

“I would say to any new user of the system if you have the patience to stick with it, the outcome will be fabulous for you and your customers,” added John.

00+ customers
registered for
myEnergy since
its launch

Connecting with our communities

We have strong connections within the communities we serve. With the majority of our people living and working in regional Victoria, we play an important role as an employer and in supporting the social and economic development of local communities.

This includes purchasing local goods and services, developing infrastructure and facilities and consulting with communities to ensure our services continue to meet changing needs and expectations as the energy market continues to evolve.

Our partnerships program is designed to build strong, deeper connections with our communities and our employees who live and work in these communities. In particular, our partnerships are designed to build healthier, more resilient communities, encourage diversity and inclusion, and empower more sustainable communities.

The Renewable Newstead community meet monthly to discuss the town's progress towards achieving their goal of 100% renewable energy.



Tour de Depot

2017 saw the Powercor Tour de Depot charity cycling series return to Shepparton and Warrnambool for its third year.

More than 700 community members participated in the Tour, which included a 10-kilometre ride and 20-kilometre time trial. The Shepparton event raised \$65,000 for Shepparton Foodshare and Inspired Carers, while in Warrnambool the event raised \$65,000 for the Leila Rose Foundation.

Since its inception in 2015, the Powercor Tour de Depot with the support of the local community has raised more than \$470,000 for worthy local charities and support organisations. These funds have ensured that local charities can continue to provide their much needed services.

Powercor Country Festival

In partnership with the Australian Football League's Essendon and Geelong football clubs, we delivered the 2017 Powercor Country Program. The partnership is designed to promote the contribution that regional Australia makes to the social and economic fabric of the country, and to bridge understanding and appreciation between urban and rural communities. In its second year, the Country Game attracted almost 60,000 people to the MCG.

To celebrate local heroes, CitiPower and Powercor launched the Game Changers program inviting communities to nominate women who were driving change and making a difference in their local community. The inaugural Powercor Game Changer was awarded to Nicci Wall, a mental health advocate located in Geelong, who received \$5,000 towards her development and goals, and a further \$5,000 to Mind Works Geelong.

Western Bulldogs

Powercor entered into a three-year partnership with the Western Bulldogs' Community Foundation and Next Generation Academy. The partnership has provided a platform to celebrate our commitment to diversity and inclusion. The program gives our employees the opportunity to volunteer as mentors to young business leaders, become 'Adapters' supporting newly arrived immigrants and refugees, or help expand mental health programs in Melbourne's fast growing western corridor.

Total investment in
community programs
for 2017

\$1.9

A member of the public trying Virtual Reality goggles at Open State.



Our Women in Engineering Scholarship winners participate in Open House.



Open State, Melbourne Design Week

As part of Melbourne Design Week, CitiPower and Powercor participated in Open State, where we showcased our innovation in the design of the electricity network. We invited 40 visitors to our Market St headquarters to experience a 3D virtual reality session which focused on visualisation of the design process.

As part of the tour, participants uploaded designs of electricity infrastructure onto their smartphones and then inserted their devices into virtual reality goggles where the designs were viewed in 3D format. Members from our spatial design team were on hand to answer questions about how the technology worked and the benefits for the network, customers and key stakeholders.

Open House

CitiPower and Powercor once again sponsored Open House Melbourne, offering the extremely popular tours of our CBD substations J and Russell Place. In 2017 the program was expanded to include a bespoke virtual reality experience through our Spatial Design Team at our site office at Waratah Place.

Our Diversity & Inclusion Working Group extended the experience to 24 young women in Science, Technology, Engineering and Mathematics (STEM), studying in the electricity sector. The group was given a brief history of the site and the electricity distribution sector, and participated in a tour showcasing how virtual reality and 3D modelling design software are being used to expand the grid and plan for the future at Waratah Place in Chinatown.

Renewable Newstead

The Central Victorian town of Newstead began the trial of a new residential tariff, marking a significant step on the township's journey toward achieving their goal of 100% renewable energy by 2021.

In late 2017, the Australian Energy Regulator approved the trial Newstead Residential Tariff which will be available to people within the Newstead area in July 2018. It will remain in place until 31 December 2020 when it will be reviewed based on tariff uptake. The partnership is a great example of how distribution networks, communities and government can work together to explore solutions that help communities achieve their energy goals.

15M

Investing in a smarter, more efficient network

With population growth across Victoria increasing, and Melbourne set to surpass Sydney as Australia's largest city during the 2030s, it is essential we invest in infrastructure and technology which ensures our network continues to be resilient and reliable well into the future. In 2017 we supported projects which will ensure Victoria has the infrastructure it needs to accommodate its fast-growing population, and we continued to take a cost-effective approach to upgrading and refurbishing our own assets.

Demand management – Smart Meter Voltage Management

Specialist teams at CitiPower and Powercor devised a demand response initiative in 2017 which is pushing innovation boundaries and in doing so, contributing to the National Electricity Market. Smart Meter Voltage Management (SMVM) involves using smart meters to lower voltages quickly and at scale across the network to reduce demand from the transmission network at times when high temperatures and subsequent use of air conditioning causes electricity demand to rise significantly.

By using this technology, we can help ease potential electricity supply shortages and contribute to the reliability of supply, while keeping customers within acceptable voltage levels. We believe we are the first networks globally to be leveraging investment in smart meter capability to deliver voltage reduction at this scale.

When the Australian Energy Market Operator (AEMO) predicts and then calls a high-demand event, our control room can quickly and incrementally drop voltages network-wide at 82 zone substations across our service area.

Fresh voltage data is then provided every five minutes, ensuring we can maintain a reliable source of supply for our customers.

And when SMVM is deployed, customers don't need to take any action. In fact, they are unlikely to be aware it has been deployed.

In late 2017 we worked with AEMO to test SMVM and to ensure it was successful. When an event is called, CitiPower and Powercor expect to contribute up to 110MW of capacity, which is enough to power the grid and supply about 110,000 homes.



Matt Gower and Peter Erwich, reviewing jobs and planned outages across the network, in the Market Street control room.

Powering growth across Melbourne

In 2017 we were involved in several projects to support Melbourne's continued growth.

As part of the Melbourne Metro Rail project, five new stations and nine kilometres of twin track will be built across Melbourne. CitiPower was engaged to relocate assets in the proposed new station precincts and to provide electricity supply during the construction of the tunnel.

We also worked with Yarra Trams to help provide public lighting and supplies for the new tram platforms, and for diverted trams during works in the Domain precinct. Our involvement in the project will continue in 2018.

The \$6.7 billion West Gate Tunnel project will improve access to Melbourne's western suburbs. In 2017 we worked with the Victorian Government and the West Gate Tunnel Construction Consortium to support the project.

Our commitment to ensuring a reliable power supply for customers is evident through the West Melbourne Terminal Station program, which will decommission the 22kV network across West Melbourne. In 2017 we were in the planning and designing stage of the project, which will see CitiPower upgrading supply to existing substations and customer sites.

Supporting a growing Victoria

Our business is supporting a growing Victoria in the metropolitan and regional areas. We are continuing to invest in infrastructure that will allow us to deliver for the communities we operate in and support the state's growing economy.

We extended our presence in regional Victoria by investing in new depots in Mildura, Cobram and Maryborough. Our ongoing and significant improvements in workplace productivity and efficiency means we are now well placed to direct investment in building these important capital projects that will benefit our employees and local communities,

while enabling us to support the significant works programs in and around these areas.

Also in 2017 the new \$20 million Truganina Zone Substation was commissioned to service the rapidly growing areas west of Melbourne such as Hoppers Crossing and Tarneit, and future suburbs such as Mount Atkinson.

We continue to invest in infrastructure that will allow us to deliver for the communities we operate in and support a growing metropolitan and regional Victoria.

Investing in our assets

In 2017 we commenced construction of the Waratah Place Zone Substation located in Melbourne's Chinatown precinct. The project is part of a multi million dollar program to provide backup for the Melbourne CBD in the event of power failure and will ensure supply is returned within 30 minutes. The Waratah Place Zone Substation is the final stage in the wider Metro and CBD Security of Supply program.

At a cost of \$4 million, we upgraded the North Richmond Zone Substation, which supplies a mix of nearly 14,000 commercial, light industrial and residential customers. The aged substation was suffering from overload

and reliability issues. We improved the performance and safety of the site, and carried out preparatory works which will see the site increase to five transformers in the future.

Across the Powercor network, we worked within a challenging timeframe to successfully deliver the connection services for a new Zone Substation in Derrimut to supply a new data centre. We connected the centre to an upgraded 66kV line without outages during the works.

Also during the year the Deer Park Terminal Station was commissioned on the Keilor to Geelong 220kV transmission network ahead of schedule and below budget. The

Terminal Station will expand supply to some of Australia's fastest-growing suburbs in western Melbourne, supplying Sunshine, Melton and the new Truganina Zone Substation. The commissioning of the terminal station, owned and operated by TransGrid, is the culmination of eight years' effort by Powercor, TransGrid, the Australian Energy Market Operator, AusNet Services and Jemena.

We also invested nearly \$26 million in fleet, with managers, drivers and operators consulted throughout the process to select the 242 new vehicles.



New Truganina Substation to support Victoria's growth corridor

In 2017 Powercor built and commissioned the new \$20 million Truganina Zone Substation. The substation, which has two 25/33MVA power transformers, uses IEC 61850, an innovative communications protocol which has never been used across CitiPower and Powercor before.

It connects to the new Deer Park Terminal Station, which was initiated by Powercor and built

by TransGrid. Truganina has been designed and built to allow for future expansion and growth, with a provision for a third transformer and an ultimate capacity of up to twelve 22kV feeders.

The project was delivered ahead of schedule and under budget. It will benefit the community by servicing rapidly growing industrial and residential development areas west of Melbourne such as Hoppers Crossing and Tarneit,

As the energy landscape evolves, we are playing an increasingly important role – helping to capitalise on technology advancements and facilitate renewable generation.

Smart Meter Technology

In 2017 we used smart meter technology to help us to service our customers better. We:

- Delivered low voltage (LV) mapping to reduce customer disruption from planned outages. The system allows us to map which powerlines are servicing which homes, so we can ensure we notify the right customers about planned outages.
- Collaborated with the Environmental Protection Authority (EPA) to use our smart meter network to measure air quality. We attached low-cost air quality sensors to lighting poles on Queen's Bridge in Melbourne to measure concentrations of fine PM2.5 particles in the air, a pollutant in smoke, fine dust and vehicle exhaust emissions.
- Used voltage data from smart meters to identify electrical faults and improve safety.
- Used smart meters to help us with testing how we can optimise service levels and reduce costs. We did this by automatically and remotely detecting when connection rods and service cables which are installed between a pole and a customer's property have deteriorated, causing a potential safety hazard.
- Leveraged the cost-effective smart

meter communications system to help us deploy an additional 7,000 street lights, rather than using the traditional cellular network method.

- Used smart meter communication paths to detect errors in customer data, which resulted in a reduction in billing complaints.

Investment in technology

We continued to invest in technology to create a smarter network. We:

- Deployed our Fault Detect, Isolate and Restore (FDIR) system to five zone substations. FDIR will enable our systems to automatically detect the location of faults and restore customers to service following a fault, leaving only the faulted section out of service. This will have significant impact on improving our customer experience and the overall reliability of our network.
- Launched Click, a mobile tool which eliminates the previously paper based process and allows us to plan, schedule and carry out all of our field activities far more efficiently.
- Installed remote monitoring equipment on six high-voltage switchboards at zone substations across our network enabling us to gain access to these

switchboards to carry out routine testing, and monitor partial discharge (unusual electrical activity).

- Trialled Robotic Process Automation (RPA) to help drive productivity efficiencies. The RPA tool was successful in automating a process which previously involved 60 mouse clicks down to just eight mouse clicks, a time reduction of approximately nine minutes. Such automation will help with creating correct customer lists, of which we generate more than 8,000 per year, and standardise our customer notification process for planned outages.
- Undertook research into how we can inspect pole tops by using drones to capture aerial images which will help identify with increased accuracy any pole defects.

Renewable energy generation

As the energy generation mix continues to change and the energy landscape evolves, we are playing an increasingly important role in helping to facilitate this shift.

In 2017 we connected 194MW of renewable generation capacity to the CitiPower and Powercor networks, connecting 10,232 solar systems that our customers had installed. We also supported renewable energy projects across the Powercor network, as north and central Victoria integrated large-scale solar into the energy generation mix, and Powercor continued constructing connections for several large-scale solar farms in North Western Victoria.

The construction of wind farms continued across western Victoria, with the successful energisation and connection of assets ahead of schedule for a number of large, renewable generation sites.

In late 2017 the Kiata Wind Farm, a 30MW wind farm project located 50 kilometres north west of Horsham, was completed. The \$2.8 million Powercor connection facilitated the project which has nine turbines and is supplying enough electricity through the national electricity grid to power over 20,000 Victorian homes.

Construction of the Yaloak South Wind Farm, situated west of Melbourne in Ballan, was also completed in late 2017. At its peak, Powercor had 35 people working on site during the winter months to ensure project delivery. The wind farm will provide total installed capacity of 28.7MW to the electricity network.



Mildura team pulls together to design new purpose-built depot

We continued our long-term commitment to our customers in the north west. In May 2017 we opened the doors to our new purpose-built depot in Mildura, a three-year construction project, designed and built to ensure we're delivering the safest, most effective and reliable service to our customers.

The Mildura Depot Committee, which was behind the creation of the facility, consisted of Field Leader Aaron Hughes, Construction Project Leader Nigel Hay, Supply Chain Field Officer Bruce Rochester and GIS/Drafting Technical Officer Tony Grant.

"We had outgrown the 66-year-old depot we were working in, and the team went above and beyond to make sure the new depot would be a productive, functional and enjoyable place to work," said Aaron Hughes.

"It was a big effort, as we were still delivering our core work, while also staying back after hours to get the depot project done.

"We are really pleased with our new environment, it's a great place to come to every morning. A huge improvement from our previous facility," said Aaron.

To acknowledge their great team effort, the Mildura Depot Committee was recognised as part of the company's 2017 Living our Values Awards.

Preparing for the future

Preparing for the future is about innovating beyond what we know now. It is also about how we work with our customers and stakeholders to ensure our investments continue to deliver a safe, reliable and affordable supply of electricity.

Our role is to plan for a shared energy future that meets the needs of our customers and the communities they live in. In planning for this future we need to take into account how households and businesses are changing the way they use energy to reduce costs, lower their carbon footprint and take advantage of new energy efficient products and services.

It also recognises that customers will continue to have more choice as new and better products and services come into the market to help them generate and store their own electricity, find the best energy prices and improve their energy efficiency.

Planning for a shared energy future is central to the development of our regulatory reset submission for 2021 to 2025, and in 2017 we have made significant progress on this journey while maintaining focus on projects and initiatives that we need to deliver during the current regulatory period of 2016 to 2020.

Stakeholder Engagement Framework

Improving stakeholder engagement is one of five key strategic priorities in our business.

In 2017, we launched our Stakeholder Engagement Framework, which is a guide to how we will work with stakeholders to deliver safe, affordable and reliable electricity in Victoria.

The Framework sets the foundation for all stakeholder engagement activities across our business; provides context and outlines the principles, priorities and evaluation measures for why and how we engage; and outlines how we will build our capacity and capability for engagement.

In 2017, we delivered on four key programs of work:

1. Improved strategic stakeholder management.
2. Improved community consultation on major projects.
3. Began engagement for our regulatory reset submissions and tariff structure statements.
4. Developed our customer insights program.

In developing the Framework we drew on previously developed practices, including:

- The AER's Consumer Engagement Guideline for Network Service Providers.
- Energy Networks Australia's Customer Engagement Handbook.
- The Better Practice Guide for Public Participation, Victorian Auditor-General's Office.
- Public Participation Spectrum, International Association for Public Participation.

We also consulted with Energy Consumers Australia, Energy Networks Australia, our Customer Consultative Committee and the Australian Energy Regulator (AER). The Framework was independently peer reviewed by Newgate Communications.

The Milky Way lights up the sky over the Great Ocean Road in the Powercor service area.

Taking steps to improve stakeholder engagement

To plan for the future in a way that meets the needs and expectations of our stakeholders, including customers and communities, we need to invest time and effort into building stronger relationships across key stakeholder groups.

We focused on improving engagement with strategic stakeholders and improving how we consult with communities on projects and programs. In 2017 we:

- Held stakeholder training for a key project and stakeholder relationship managers to build internal capacity and capability.
- Embedded improved engagement practices across our project management team with the release of the Community Consultation Handbook, which includes guidelines, tools and templates.
- Undertook our first Stakeholder Sentiment Research and Analysis to understand how key stakeholders perceived our business today and what their expectations are for future engagement.

We also established an internal Stakeholder Reference Council to ensure a coordinated approach on key issues, initiatives and programs that touch multiple stakeholder groups. This Council ensures we inform, consult and collaborate in a way that is accessible, transparent, inclusive and measurable.

Energised 2021–2015

In 2017 we launched Energised 2021–2025, our independently reviewed Stakeholder Engagement Plan for the 2021–2025 regulatory reset control period. Through Energised 2021–2025, we can engage with customers and stakeholders to understand what value they place on energy. We have already started to explore key themes including affordability, optimising the grid, greener grid, community safety and customer expectations. We:

- Engaged Stokes Strategy and Research to conduct a literary review looking at best practice engagement in the utilities sector.
- Established our independently facilitated Energy Futures Customer Advisory Panel, comprised of the

AER, government, consumer advocacy groups, business associations and customer representatives.

- Delivered phase 1 of our research program which included focus groups with residential, vulnerable, small business and commercial and industrial customers.
- Held a Network Energy Future Forum with 33 stakeholders to co-create energy scenarios that will underpin our engagement and modelling for our regulatory submissions.
- Collaborated with other Victorian electricity networks to engage customers and stakeholders to develop the key principles that will assist with tariff design.

In 2018 we will continue to engage with customers and stakeholders, ensuring the way we plan, invest and manage our networks is focused on delivering safe, reliable and affordable outcomes while responding to the community's changing needs and expectations.

Network Energy Futures and Modelling Forum

In November 2017 we held the Network Energy Future Forum with 33 stakeholders, to co-create future energy scenarios to be used in the Energised 2021–2025 engagement.

We sought their informed comments about future energy drivers and conditions that could underpin Victoria's future energy scenarios.

We asked the forum for feedback on two key areas:

- Findings from our customer research which gave an overview of customer views on future energy values, the growth of renewables, energy pricing and energy literacy and behaviours.
- Three future energy scenarios which we had scoped before the forum: Steady State, Consumer Power and Green Power.

Stakeholders were not surprised that businesses have a better understanding about pricing than residential customers, and that often many residents do not understand the difference between retailers and distributors.

They also agreed that the low understanding of energy provider roles and limited price literacy must be taken into account in future engagement.

Stakeholders' preferred future energy scenario was a mix of Green Power and Consumer Power scenarios. Steady State was their least preferred scenario.

Reliability, price and the environment were seen by forum attendees to be the three main priorities for residents, businesses, commercial and industrial customers.

Thank you to our employees,
partners and customers
for helping us keep our
perspective on what really
matters – the safe, reliable and
affordable supply of electricity.
We look forward to working with
our customers, stakeholders and
communities in 2018 as we
continue to shape Australia's
energy future.

Darcy Jones undertaking
line maintenance.



