
Victoria Power Networks

Sustainability Report

2022





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About this Report

We are pleased to present our inaugural Sustainability Report for Victoria Power Networks. This outlines the material Environmental, Social and Governance (ESG) risks and opportunities, our actions to address them, and our performance against the priorities and targets committed to in our *Sustainability Framework 2022-2026*. The framework outlined four ESG focus areas: Safe and Equitable Workplaces, Environmental and Climate Resilience, Empowering Communities and Responsible Governance.

The reporting boundary of our sustainability performance includes all operations in our control in the calendar year 1 January 2022 to 31 December 2022 unless otherwise noted. All financial data is presented in Australian dollars unless otherwise noted. Reference to 'VPN', 'the Company', 'we' and 'our' are to Victoria Power Networks Pty Ltd.

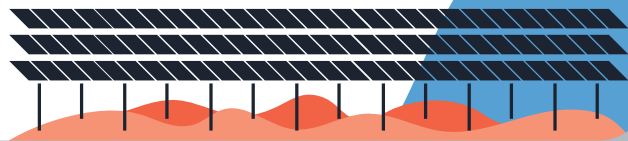
We prepared this report for all stakeholders with an interest in our business, in line with global standards for disclosures on an annual basis. We welcome feedback and invite comments or enquiries to be sent to community@powercor.com.au.

Acknowledgment of Country

In the spirit of reconciliation, Victoria Power Networks acknowledges Traditional Owners as the First People of the lands and waters where we operate. We pay our respects to Elders past, present and emerging.

Highlights from our sustainability journey, 2022

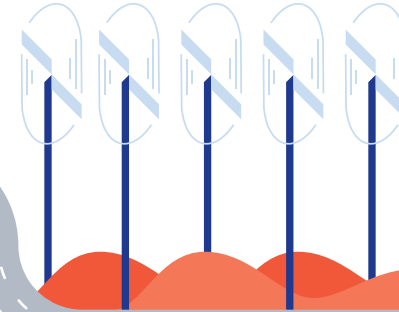
Commenced construction on one of Australia's
largest solar farms
(245MW Avonlie)



Carbon emissions reduced
by **17%** since **2019**



2.5GW
of renewable
generation
connected to
our networks



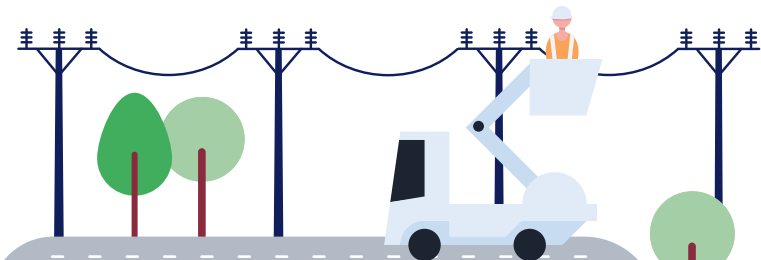
10% increase
in solar connections to
207,966 households



Positive community feedback
on response to October floods



Employee satisfaction
with inclusion and
diversity outcomes up
5% to 84%

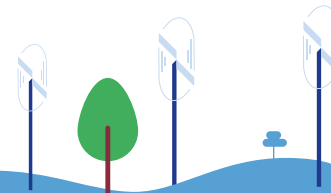
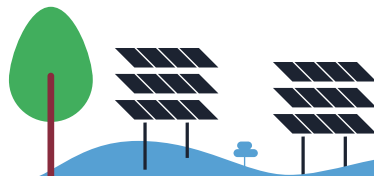


Zero fatalities or significant
(high potential) incidents

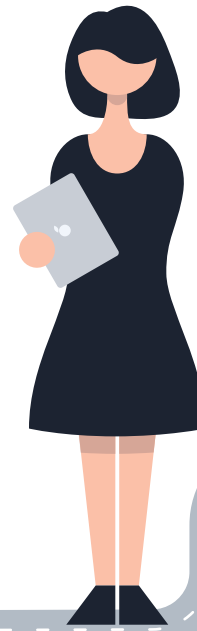
100%
of powerlines
inspected by
LiDAR



\$7 million
investment in technologies
supporting the energy transition



21%
women
in
leadership
positions,
up from
15%
in 2019



Regional communities benefiting from job creation under
Beon Reconciliation Action Plan



**6% greater
employee
satisfaction**

with health and wellbeing
programs to **79%**



Zero critical
cyber security breaches



Effective ESG
governance system established

Leadership message



Tim Rourke
Chief Executive Officer



Peter Tulloch
Chairman

It has never been clearer, in our business or the communities we operate in, as to the impacts of climate change and why our actions around sustainability are so important. Scenes of record-breaking flooding affecting both inner city suburbs of Melbourne as well as expansive regional areas in 2022 only reinforce this fact.

Indeed, it is more often than not that extreme weather events like this remind us of the real impact climate change can have on the communities we service and our infrastructure.

Our customers tell us that they appreciate the considerable efforts of our people in responding to these weather events, which is something we are very proud of. The primary focus of our sustainability efforts however is to contribute in a responsible way to reducing emissions that cause climate change and avoiding where we can the impact of such weather events on our customers.

Our *Sustainability Framework 2022- 2026* sets out how we are doing this.

Launched in May 2022 and supported by online training and conversations across our businesses, the framework established targets to continuously improve our performance in four focus areas:

- providing safe and equitable workplaces
- ensuring environmental and climate resilience
- empowering our communities
- sustaining the responsible governance of our businesses.

We are very pleased therefore to introduce this *Sustainability Report 2022* outlining our progress.

We work hard to 'keep the lights on' for our customers and despite the extreme weather events in 2022 our networks remained resilient with 99.97% and 99.99% reliability for Powercor and CitiPower respectively. Significantly, 2022 was a year when the transition of the national energy market accelerated as new policies and programs at state and federal government levels lifted targets for carbon emissions reduction.

Our businesses have important roles within the transition to a clean energy future. With our CitiPower and Powercor networks distributing electricity to the Melbourne metro area and the western half of Victoria, our ability to enable renewables within our networks is a significant part of the solution to achieving Victoria's net zero carbon aspirations. At the end of 2022, there was 2.5 gigawatts (GW) of renewable generation connected directly within our two networks, including over 870 megawatts (MW) of residential roof-top solar, 680MW of large-scale solar and 590MW of large-scale wind generation.

In addition to enabling renewables to be connected to our networks, we've worked to enable residential customers with installed solar generation systems to export as much as possible of their excess clean energy back into the grid. We lifted 5kW export approved connections from ~60% in 2020 to greater than 94% in 2022 enabling more customers to connect and export their excess energy to our networks. As Distribution System Operators, our networks are also driving industry leading innovation necessary to ensure reliable power and system security.

Beon Energy Solutions, our unregulated business, has now constructed more than 1.0GW of large-scale and industrial renewable generation and during the year, started work on one of the country's largest solar farms in New South Wales.

We have delivered a 17% reduction in our own greenhouse gas emissions in 2022 compared to 2019 levels. This positions us well to achieve our target of 30% by 2030 and largely reflects the increasing proportion of renewable energy supplied via our networks as well as actions taken directly by our businesses to reduce our environmental footprint.

This report provides the 2022 results for a variety of our sustainability key performance indicators (KPIs). These relate to the topics that were assessed as being of highest material importance to both our stakeholders, including customers, and our businesses. We're progressing well towards our 2026 targets and we thank our people for their commitment and contribution to this journey.

Pleasingly, the businesses have performed well in relation to our priority to ensure the health and safety of our people and the communities we service with zero significant incidents in 2022.

Feedback from our employees via our 2022 annual opinion survey was pleasing in relation to our health and wellbeing program and efforts to build inclusion and diversity within the workplace, with 6% and 5% improvements on the prior year, both lifting above our initial targets. We fully support our people in the ongoing implementation of initiatives to deliver against both the intent and metrics set in our Sustainability Framework.

On behalf of the Board and executive we hope you find this report informative.



Tim Rourke
Chief Executive Officer



Peter Tulloch
Chairman

About Victoria Power Networks

Victoria Power Networks Pty Ltd (VPN) is the consolidating parent of the group of companies that own and operate two regulated electricity distribution networks, and a business offering unregulated energy solutions for customers nationally.

CitiPower – the distribution network supplying electricity to Melbourne's central business district and inner suburbs, and boasts the highest customer density in the country. In the National Electricity Market, CitiPower ranks second for total productivity and is the lowest cost electricity network for customers.

Powercor - the electricity distribution network for regional and rural communities in the western and central Victoria and Melbourne's outer western suburbs. The diversity of this region ranges from some of the fastest growing urban communities in Victoria to sparsely populated agricultural districts and some of the state's most prospective areas for renewable energy generation. Powercor is the leading rural distribution network in the country based on both low costs to customers and total productivity.

Energy Solutions (trading as Beon) – which is a national leader in the development of large-scale renewable energy generation as well as electricity transmission infrastructure and assets.

CitiPower and Powercor teams are based in locations across Melbourne and western Victoria including 14 depots in the city and regional communities accommodating our field-based teams. Our corporate head office is in Melbourne, Australia.



Key facts

CitiPower and Powercor

Number of employees: **1,995**

Number of customers: **1.25 million**

Total area serviced: **145,808 km² ***

Length of distribution network: **81,577 km ***

Number of poles in network: **655,488 ***

Power distributed in 2022: **16,518 GWh**

Beon

Number of employees: **126**

Total renewables constructed: **1.0 GW**

* Audited figures as at June 2022.

Our vision and values

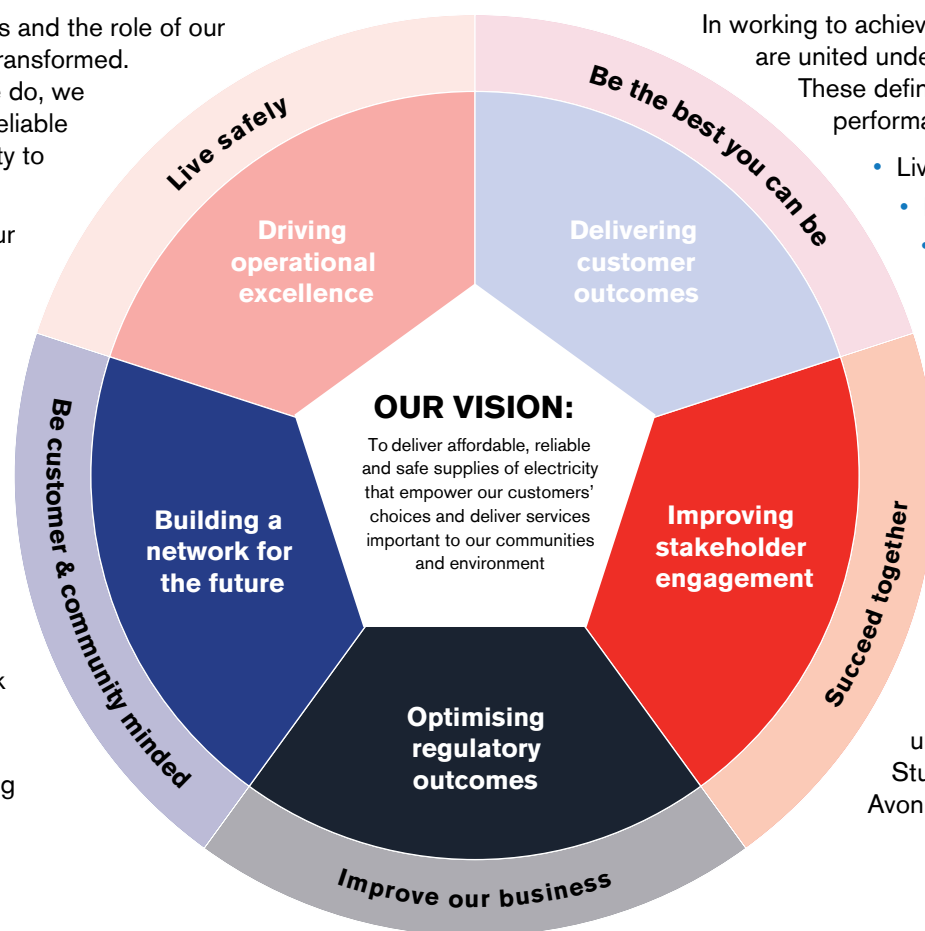
Our corporate strategy is anchored by a vision to deliver affordable, reliable and safe electricity supply, empowering customer choices and delivering services important to our communities and the environment.

This vision has evolved as our businesses and the role of our network in the energy supply chain has transformed. With customers at the centre of what we do, we balance our traditional role in providing reliable electricity with our emerging responsibility to enable a clean energy future.

Five strategic drivers form the basis of our corporate planning:

- Customer outcomes: continually improving our service standards and resources to enable customer choice and make it easy to work with us.
- Stakeholder engagement: listening to the needs of all customers and stakeholders, so we can deliver solutions that support communities and economic growth.
- Operational excellence: efficiently operating and maintaining our network to ensure high standards of reliability and safety, in cost-effective ways.
- Future networks: evolving and adapting our infrastructure and services to enable emerging technologies, while remaining competitive.

- Regulatory outcomes: designing financial plans in collaboration with operational teams to balance the expectations of regulators, shareholders, customers and stakeholders.



In working to achieve business objectives, our teams are united under a commitment to five key values. These define the behaviours that ensure our high-performance culture.

- Live safely
- Be the best you can be
- Succeed together
- Improve your business
- Be customer and community minded.

Each year we reward those whose performance is an outstanding demonstration of our values through our Living our Values Awards (LOVA). Our LOVA People of the Year are recognised through individual and team awards for each of our values.

The alignment of our strategic drivers and values with our Sustainability Framework is evident in many of the outstanding achievements recognised under the LOVA program (see Case Study: First Nations engagement - Avonlie Solar Farm).

CASE STUDY:

First Nations engagement - Avonlie Solar Farm

Winner: 2022 Living our Values Award

Category: Be customer and community minded

Beon's model for constructing large-scale renewable generation includes a desire to maximise the use of people and resources from the local area to ensure a positive legacy is left.

For the Avonlie Solar Farm, Beon employed two local Wiradjuri women to assist with the training and employment of local people. They placed special focus on recruiting Aboriginal women. Avonlie is being built near Narrandera in New South Wales, population 5,700 amongst whom around 15% identify as Aboriginal or Torres Strait Islander.

The program assisted over 30 local Aboriginal women and men – many of whom were long term unemployed – to get job ready and gain employment on the solar farm. This included assisting them to get their documentation in order, providing pre-employment training and on the job support. This has had significant flow on benefits for the entire community as well as improved awareness amongst Beon people about cultural and community needs.



The team behind the Beon Aboriginal Training and Employment Program celebrate their recognition at the Living our Values Awards 2022 event.



Participants in the Beon Aboriginal Training and Employment Program installing panels at the Avonlie Solar Farm.

Our approach to sustainability

Our *Sustainability Framework 2022-2026* outlines four focus areas which are defined based on both internal strategic priorities and the perspectives of external stakeholders revealed through a range of engagement activities.



Safe and equitable workplaces

The health, safety and wellbeing of our people, and the communities in which we operate, is at the core of our values and remains our number one priority.



Environmental and climate resilience

Proactively reducing the environmental impact of our business while also building network resilience to the effects of climate change.



Empowering communities

Enabling customer choices for how they generate, store, use and sell energy to support the transition to a clean energy future.



Responsible governance

Sustaining our disciplined, risk-based approach to managing sustainability as part of our corporate governance and regulatory systems.

The framework was approved by the Executive Management Team and endorsed by the VPN Board. The implementation of this framework is led by our Head of Health, Safety and Sustainability in collaboration with executives from across the business through the VPN Environmental, Social and Governance (ESG) Steering Committee.

The alignment of actions under the framework with the business strategy is further embedding sustainability into our core business activities. Similarly, the material issues and committed metrics defined by our framework are directly relevant to

identified business risks and established policies. This process enables sustainability related risks to be identified, assessed, monitored, managed and reported.

In May 2022, the Environmental, Social and Governance Committee was established by the VPN Board to drive sustainability performance in collaboration with the executive-led ESG Steering Committee. Both committees have reviewed the material issues assessment, focus area actions, targets and reporting.



VPN ESG Committee members Ilan Sadeh, Charles Tsai (Chair) and Trena McFarland.

Materiality assessment

Our inaugural materiality assessment was conducted in 2021 to determine the relevance and significance of issues to both our business and our stakeholders. We recognise that effectively addressing material issues is an important expectation of our shareholders and their Hong Kong Stock Exchange reporting.

The 2021 materiality assessment informed the themes, framing and focus areas for action under our *Sustainability Framework 2022-2026* and was subsequently reviewed in 2022. The process was supported by external consultants and aligned with international standards, including Global Reporting Index (GRI), and the AA1000 AccountAbility Principles Standard (AA1000APS).

We also align the material issues with the United Nations Sustainable Development Goals. These goals are recognised as a worldwide call for action to protect our planet and create better living conditions for everyone. By aligning our focus areas and priorities to these goals (see the table opposite), we are demonstrating how VPN is acting locally to contribute to this global quest.

The 2022 review considered the following inputs:

- industry trends and regulatory analysis including the World Economic Forum's 2021 and 2022 Global Risks Reports and ERM Sustainability Institute Annual Trends reports
- research conducted by regulators and industry advisers including the '*Barriers and enablers for rewarding consumers for access to flexible distributed energy resources (DER) and energy use*' produced by Acil Allen for the Energy Security Board, and the '*Guide to climate change and its likely effects*' prepared by Scientell for Energy Networks Australia
- community consultation conducted by the Victorian Government as well as CitiPower and Powercor into the specific issue of network resilience
- insights obtained through research and consultation to support planning for our regulatory proposals for the 2026-2031 period and studying the issues of affordability and equity, reliability and resilience, the energy transformation and customer experience
- policy reviews and consultation papers released by state and federal governments into emissions reduction, electrification, renewable energy development, DER implementation and electric vehicles
- periodic and annual Enterprise Risk Management reviews and updates to the risk appetite statement.

The 2021 materiality assessment identified 16 issues of high importance and influence both to our stakeholders and our businesses. Of these, 8 were selected to be the priorities for our business for which key performance indicators have been set with targets for improvement by 2026.

The 2022 review of our materiality assessment found there are no new material issues that need to be considered in our planning. However, it noted three issues of increased importance during 2022: network resilience, climate change and cyber security risk.

This report includes details about our performance against all material issues and the KPIs set for the eight identified as our highest priority.

Table 1. Summary of material issues assessment

Focus area	Alignment to UN Sustainable Development Goals	Scale of importance to VPN and stakeholders		
		Material	Highly material	Increasingly material
Safe and equitable work places	  	Workplace diversity, equity and inclusion	Workplace safety Health and wellbeing	
Environmental and climate resilience	      	Environmental protection and resource conservation		Network resilience Climate change
Empowering communities	     	Enabling customer energy choices Electrification and innovation Respect for Indigenous communities	Public safety Energy equity	
Responsible governance		Sustainability management and governance Responsible supply chain Workplace behaviour and employee conduct	Financial, risk and corporate governance	Cyber, privacy and data security



Safe and equitable workplaces

Our approach

'Live Safely' is one of our core values and is reflected in everything we do. We strive to eliminate high consequence and near miss incidents which could result in serious injury or fatalities.

VPN continues to build a workplace that is diverse and inclusive. We value our people by helping them reach their full potential in an inclusive environment – where people feel valued, trusted, authentic and have high levels of psychological safety. Our Inclusion and Diversity Strategy includes a focus on gender balance, Aboriginal engagement, flexible working conditions, cultural diversity, LGBTIQ+ inclusion and education, and advocacy for people with disability.

Material issues

Workplace safety:

The safety of our people is our highest priority.

Health and wellbeing:

The health and wellbeing of our employees, including their mental health, is important to their satisfaction and a key factor in their safety.

Workplace diversity, equity and inclusion:

We are committed to a work environment where all our people feel valued, trusted, authentic and have high levels of psychological safety.

Progress against targets

Fatalities

🎯 2026 Target:	0
✓ 2022 Performance:	0

Significant (high potential) incidents

🎯 2026 Target:	0
✓ 2022 Performance:	0

Employee satisfaction re: wellbeing and mental health (Employee Opinion Survey)

🎯 2026 Target:	75% favourable
✓ 2022 Performance:	79% favourable

% Females in employment

🎯 2026 Target:	25.0%
➔ 2022 Performance:	21.0%

% Females in management roles

🎯 2026 Target:	22.0%
➔ 2022 Performance:	21.0%

Inclusion and Diversity Index outcomes (Employee Opinion Survey)

🎯 2026 Target:	75% favourable
✓ 2022 Performance:	84% favourable

🎯 Target ✓ Delivered in 2022 ➔ In progress

Highlights

777 people participated in hazard awareness training



National Safety Council of Australia (NSCA) 2022 **training award finalist**

Retained ISO45001 certification



Beon retained **Office of the Federal Safety Commissioner** certification



401 people accessed our wellbeing subsidy



98% of people managers completed bespoke 'Inclusion in Action' face-to face training



Created dedicated **Diversity Engagement Lead** position

0.7% reduction in gender pay gap from 2021



Workforce safety

Our people are exposed to challenging and potentially hazardous working conditions, associated with live electricity infrastructure, diverse geographic conditions, harsh weather, and high-pressure situations involved with natural disasters. Keeping our people safe is our primary focus every day.

At VPN, we categorise all safety incidents and near misses based on their potential to cause harm not only on the actual impact. We use a Class 1 to 5 classification framework, with Class 4 and 5 incidents and near misses being those with credible potential to cause permanent disability or death (known as significant incidents). Our safety management focuses on eliminating Class 4 or 5 incidents by implementing robust controls for all high-risk activities, whilst also learning from lower classified incidents.

Significant safety incidents (including near misses) have decreased from five in 2021 to zero in 2022.

Our ISO45001 certified Health and Safety Management System is centred on the following pillars:

- development and management of safe working procedures
- diligent identification of risks and attention to learning from hazard reporting, safety incidents and near misses
- equipping leaders with the resources necessary to promote safe workplace behaviour and conduct
- training programs to understand and address the human factors that can lead to safety incidents
- reviewing our performance and implementing system improvements.

We were pleased to have been recognised at the 2022 National Safety Council of Australia's National Safety Awards of Excellence held in Melbourne, Australia. CitiPower and Powercor were nominated in the Best Work Health and Safety Training Category for our Job Safety and Environment Assessment (JSEA) Refresh program. This was recognised for its focus on driving development and enhancements of overall safety processes.

Hazard awareness training

Recognising that a lack of hazard or situational awareness is the leading causal factor in workplace injuries at VPN, our Health, Safety and Environment (HSE) team, together with field services and other industry experts, developed a bespoke Hazard Awareness program in 2022.

The face-to-face, three hour tailored program was delivered by external behavioural safety experts and provided actionable insights to improve our approach to positive health and safety attitudes and behaviours that result in a safer work environment. The program delivery commenced in late 2021, with 777 employees completing the course by the end of 2022.

Safety audit performance

The Health and Safety Management System undergoes external 6-monthly surveillance audits. In 2022, 20 days of external audits were undertaken combined with environment and quality. These audits identified one safety related minor non-conformance relating to the consistency of contractor induction processes. An action plan is underway to resolve this item during 2023.

CASE STUDY:**Virtual reality training**

In 2022, we implemented virtual reality training to further improve the quality and accessibility of our technical training program. The Varsity 3D immersive application is highly interactive and provides real life scenarios to enable the employee to learn and practice in a safe environment. Using Varsity the learner can perform everyday tasks with simulated tools, procedures and equipment.

The first of the Varsity modules developed was the Safe Approach Distances (SADs) refresher which was piloted by 170 field employees. Of these, 92% said they would support Varsity replacing our paper-based training.

Employees were able to identify SADs more effectively and completed the overall training requirements much faster when compared to the field training format.

- 562 employees have completed SADs using Varsity
- 82% user satisfaction score
- 36% reduction in training time.



Innovative virtual reality technology is improving safety training outcomes.

Demonstrating our safety values in 2022

- 4,531 HSE conversations and interactions
- 864 HSE inspections
- 2,214 HSE hazards and near misses reported



This work site in the Macedon Ranges is an example of the difficult to access terrain that often creates safety challenges for Powercor field crews.

Health and wellbeing

Each year we continue to build and expand our program of activities that support a working environment that prioritises the mental, physical and emotional health of our people. In 2022, we added new initiatives such as the 'Your Mental Fitness' and 'Mindfulness & Meditation' to promote positive mental health behaviours and practices. A 'Health Check' program, focusing on reducing cardiovascular risk, was also added to the annual delivery of skin checks and flu vaccinations.

The annual RUOK? Day promoting mental health awareness attracted record numbers of attendance at team-based conversations to learn more about how to identify and support colleagues who may need help.

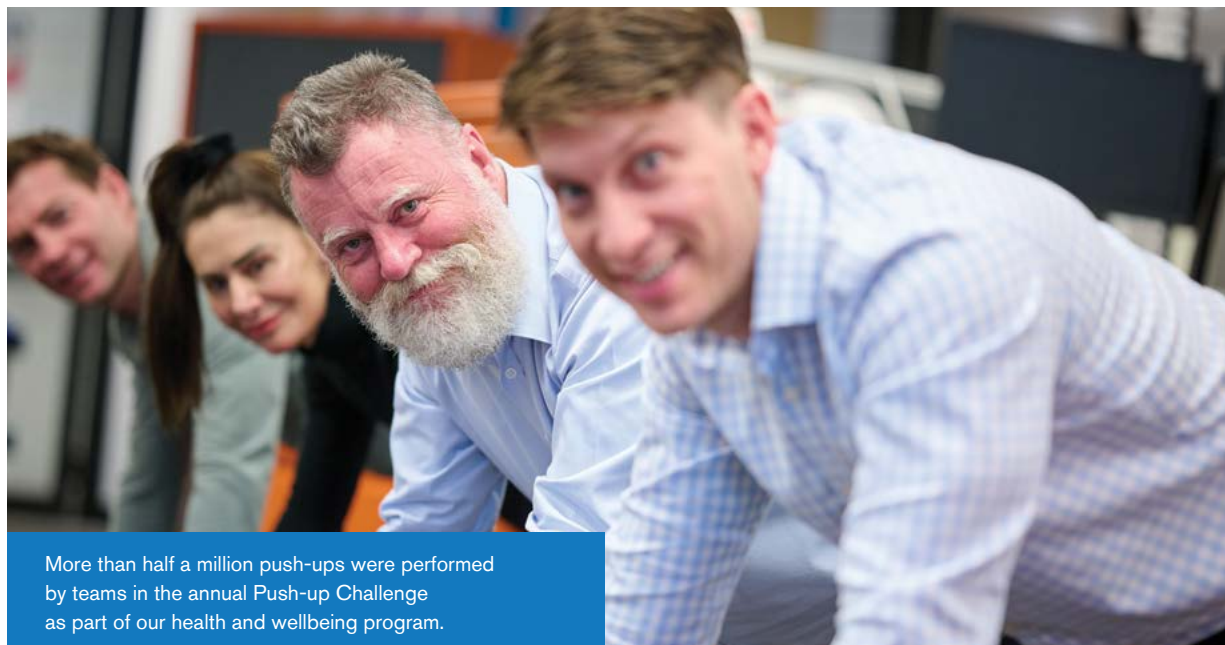
Our annual involvement in The Push-up Challenge saw 50 teams comprising 328 employees across VPN performing more than half a million push-ups as part of an effort to get active both in the office and at home.

We further promoted access to our confidential counselling Employee Assistance Program (EAP) for our employees and their direct family members and continued to provide onsite counselling for our employees at all depot locations.

In response to employee feedback, the VPN Wellbeing Subsidy was reinvigorated in 2022, replacing the previous Fitness Subsidy. The new

subsidy expanded the range of health and wellbeing initiatives for which the business will provide financial support to include gym memberships, personal training, yoga, pilates, dietician consultations, and online mindfulness subscriptions. Participating employees can claim up to \$50 per month (\$600 per year) on their selected programs. In total, over 400 VPN employees benefited from this subsidy during 2022.

Our annual Employee Opinion Survey (EOS) illustrated the positive response to our new programs. Employee satisfaction with health and wellbeing programs and benefits improved from 73% in 2021 to 79% in 2022.



More than half a million push-ups were performed by teams in the annual Push-up Challenge as part of our health and wellbeing program.

Workplace equity

VPN recognises that all employees bring their own unique capabilities, experiences and characteristics to their work. We value the differences between people and the contribution these differences make to our business and the communities we serve. Our Inclusion and Diversity (I&D) Policy outlines our overarching commitment to providing a work environment that supports individual differences including articulating the responsibilities of senior team members.

The supporting I&D strategy guides actions in relation to:

1. Inclusion
2. Gender diversity
3. Aboriginal engagement
4. Flexible working.

Our I&D policy and strategy is overseen by our Executive Management Team, while actionable programs are led by our I&D working group comprised of people from across the business.

To track and assess areas for improvement, employee satisfaction against our progress is measured via our annual EOS. A series of 8 questions covering a range of related matters was introduced in the 2021 survey and is now issued annually.

Employee Opinion Survey 2022 key findings

- 85% feel our business encourages and promotes diversity of backgrounds, talents and perspectives
- 79% believe our senior leaders are committed to achieving an inclusive and diverse business
- 85% feel confident that if an incident of workplace bullying or harassment took place the business would not tolerate it

Inclusion in action program

People managers are key to the success of our I&D strategy. Our 'Inclusion in Action' program was therefore implemented in 2022 as a forum to educate and train our managers, giving them tools to lead by example in making our business a more inclusive and diverse workplace. Eighteen 2-hour workshops were delivered, with 98% attendance by executive and managers. This was followed by one hour coaching sessions to embed inclusive leadership behaviours across the business.

In October 2022, we implemented a new 'Inclusive Teams' workshop with 21 sessions run for field services teams in CitiPower and Powercor. Around 74% of our field employees attended and the training will be rolled out to all remaining functions by June 2023.



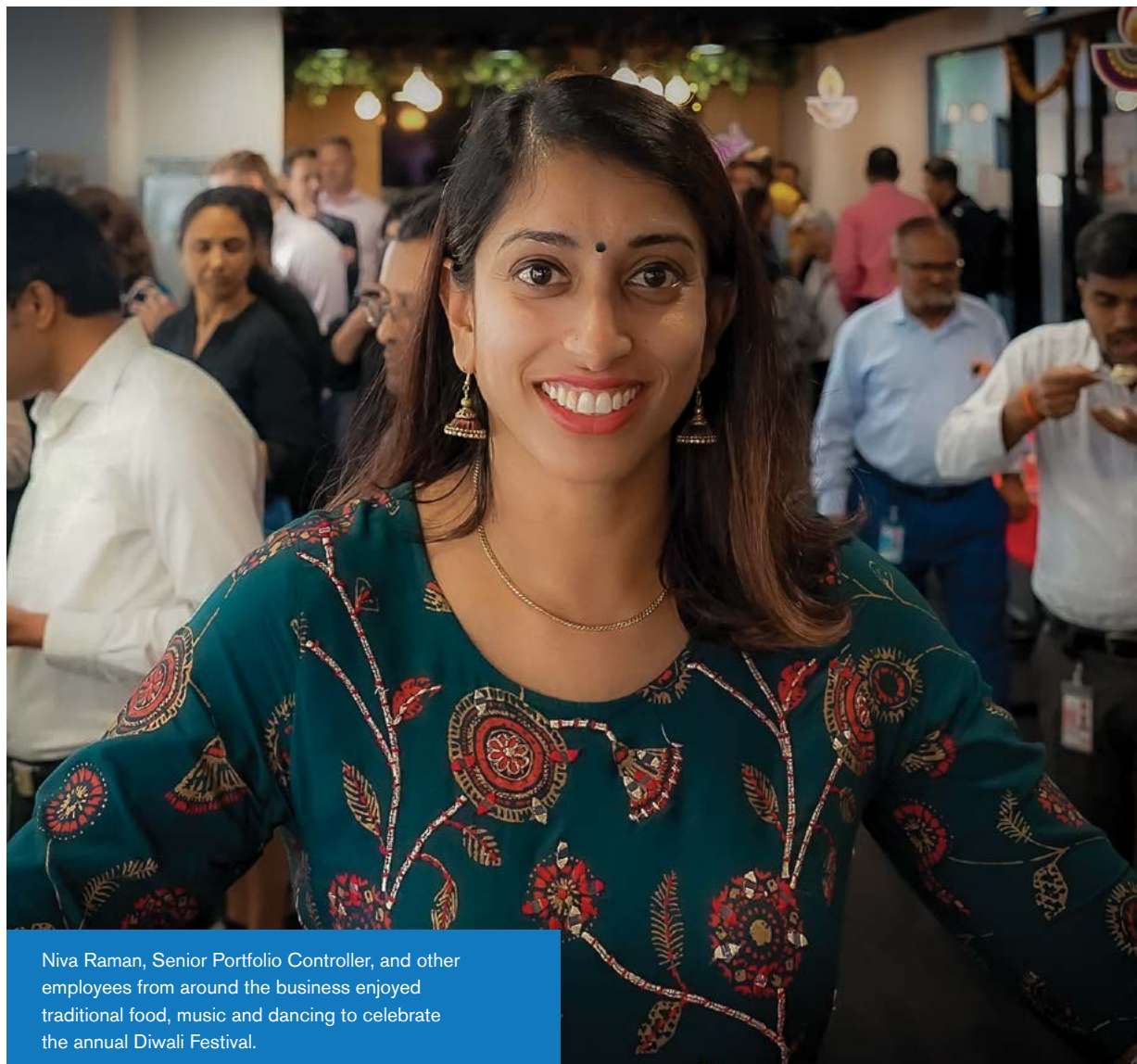
Women in Engineering Scholarship recipients on site at Winneke Solar Farm constructed by Beon in 2022.

Celebrating our diversity

In order to support and recognise our diversity, VPN celebrates various days to encourage conversations and acceptance. Key days on our calendar chosen by employees due to their relevance to the cultural identities of our people are:

- Lunar New Year
- Harmony Day
- Ramadan and Eid
- Diwali Festival
- NAIDOC Week.

Harmony Week saw the launch of our 'Journeys' video series, featuring five colleagues talking about their cultures and backgrounds, settling in Australia and the importance of multiculturalism in our workplace. Copies of *'Growing Up in Australia'*, a selection of stories and recollections capturing the diversity of our nation, were also distributed and made available in all lunchrooms across our sites. A collaborative Harmony Week Spotify playlist was also shared.



Niva Raman, Senior Portfolio Controller, and other employees from around the business enjoyed traditional food, music and dancing to celebrate the annual Diwali Festival.

Women in the workplace

Our I&D strategy and Sustainability Framework includes commitments to gender targets, increasing representation of women in the business and in leadership. We are dedicated to ensuring that gender is not a barrier to career opportunities and advancement. Our initiatives to support gender equality include undertaking a gender pay gap analysis across the organisation annually, commitments to increase female participation at all levels across VPN, as well as targets to increase the number of women in supervisor, management and executive roles.

In 2017, VPN established a Women in Power network, comprised of both women and men in the business. Women in Power works to achieve our goal of full and effective participation and equal opportunities for women. In 2022, the Women in Power network was revitalised with new committee members and initiatives to sustain efforts to create a positive impact across our business. Events held were:

- 'Women in leadership' workshops
- Liptember fundraiser
- International Women's Day events
- Sip and paint networking events.

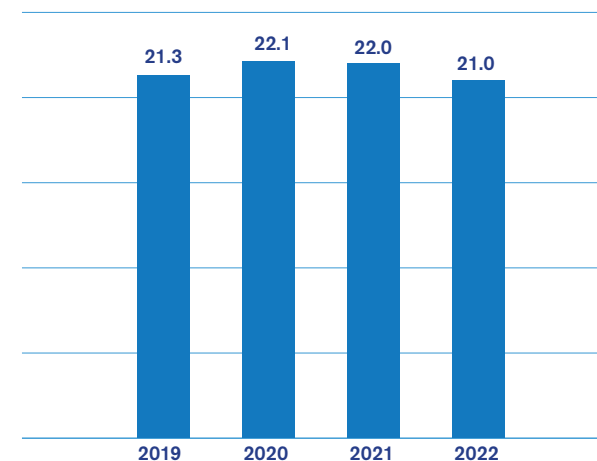
To support women entering the energy industry we offer Women in Engineering scholarships for electrical engineering undergraduates as well as pre-apprenticeship scholarships for those interested in a career in trades. During 2022, we awarded two electrical engineering students with scholarships to support their university degrees and provided them both with summer internship programs. In addition, 12 scholarships were awarded to women studying a Certificate II in Electrotechnology. Participants in our scholarship programs become candidates for either our annual graduate recruitment or apprenticeship recruitment programs.

Whilst we are proud of our current efforts to create an equitable workplace, we recognise that we currently sit below the electricity and gas industry standard of 24% women in the workforce set by the Workplace Gender Equality Agency in 2021.

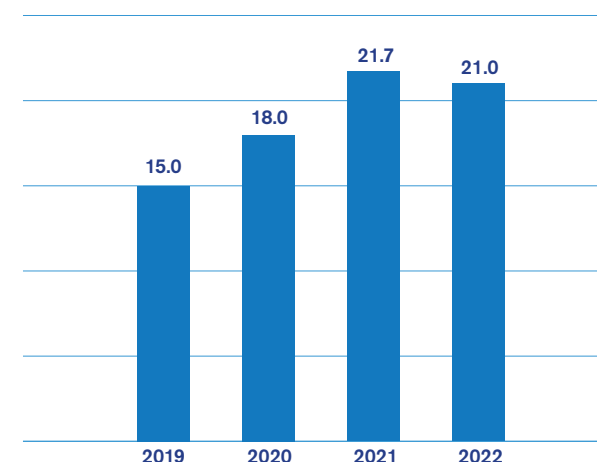
Our recent results in this area are influenced by an increase in the number of trade and technical roles recruited in CitiPower and Powercor and for which a small percentage of successful candidates are female. Positively, amongst non-technical professional and administrative functions, we have achieved 30% female employment.

A dedicated Diversity Engagement Lead was appointed in 2022 and has quickly developed a comprehensive strategy to support the achievement of this target. This involves attraction strategies designed to promote diverse career opportunities through school, tertiary and technical education and offer earlier work experience and engagement opportunities.

Graph 1. Females in employment 2019-2022, (%)



Graph 2. Females in management roles 2019-2022, (%)



Identity recognition

In 2022, we launched our Pride network – Sparkle - which is a play on words where a spark of electricity is intended to symbolise the opportunity to shine brightly. The aim of Sparkle is to create a support network for LGBTIQ+ individuals, parents and allies of the community, raise awareness about the specific challenges and experiences LGBTIQ+ people face, and build on our inclusive culture in which we are all heard, respected and valued.

Sparkle marks events to celebrate and support our LGBTIQ+ community, such as Wear it Purple Day, IDAHOBIT and Pride. Additionally, Sparkle promotes the use of inclusive language in the workplace and hosts networking events to help educate our community on gender identity. The group already has more than 100 members and allies and is expected to continue to grow in 2023.



Reece Jamieson, Strategy, Programs and Change Lead, and member of the I&D Working Group promotes the Pride network in the workplace.

Aboriginal engagement

Our 2021 EOS Survey found that 2% of our workforce identifies as Aboriginal and/or Torres Strait Islander. Our dedicated Aboriginal Engagement working group is supporting initiatives to continuously improve our work to respect, recognise and build effective relationships and opportunities with First Nations people.

In 2022, Beon launched a Reconciliation Action Plan (RAP) reflecting their positive culture developed through projects executed in regional communities across Australia. For further information see page 44.

Work has also now commenced to develop a RAP for CitiPower and Powercor. In 2022, consultation was conducted with three of the Registered Aboriginal Parties within the regions we service. These groups identified employment opportunities, local procurement and renewable energy aspirations as the priorities they look to us to support.

In 2023, further consultation and collaboration will be conducted in order to develop the draft RAP. Additional resources have been recruited to further expand our team dedicated to First Nations engagement.



Beon teams observe a traditional smoking ceremony conducted at the Bomen Solar Farm which is on Wiradjuri country near Wagga Wagga, New South Wales.



Environmental and climate resilience

Our approach

All our businesses manage extensive infrastructure both above and below ground which is exposed to the effects of climate change. Forecasts for increasingly extreme weather conditions are influencing our approach to asset management, maintenance and construction.

At the same time, we recognise our responsibility to protect our environment for future generations and reduce carbon emissions in line with state and national targets. We achieve this in three ways – firstly by supporting the increase of renewable energy generated and distributed; secondly, by reducing the direct and indirect carbon emissions from our business operations; and finally, by executing an internationally certified environmental management system that governs our activities.

Material issues

Network resilience:

We design, maintain and manage our networks to maximise their resilience to the effects of climate change and to sustain high levels of supply reliability for our customers.

Climate change:

We are committed to reducing carbon emissions to actively contribute to achieving net zero emissions targets.

Environmental protection and resource conservation:

We are conscious of our environmental footprint and therefore manage and where possible, reduce our impact on the natural environment.

Progress against targets

Carbon emissions

Reduce both direct and indirect carbon emissions including distribution line losses based on 2019 baseline.

🎯 2030 Target: 30% reduction on 2019 baseline of 1.194mt CO₂-e

➔ 2022 Performance: 17% reduction to 0.988mt CO₂-e

Climate resilience and reliability

Outperform targets for average minutes off supply per customer for unplanned outages (System Average Interruption Duration Index).

🎯 Powercor 2026 Target: 124.0 minutes

✓ Powercor 2022 Performance: 121.4 minutes

🎯 CitiPower 2026 Target: 24.7 minutes

✓ CitiPower 2022 Performance: 15.2 minutes

Environmental protection and resource conservation

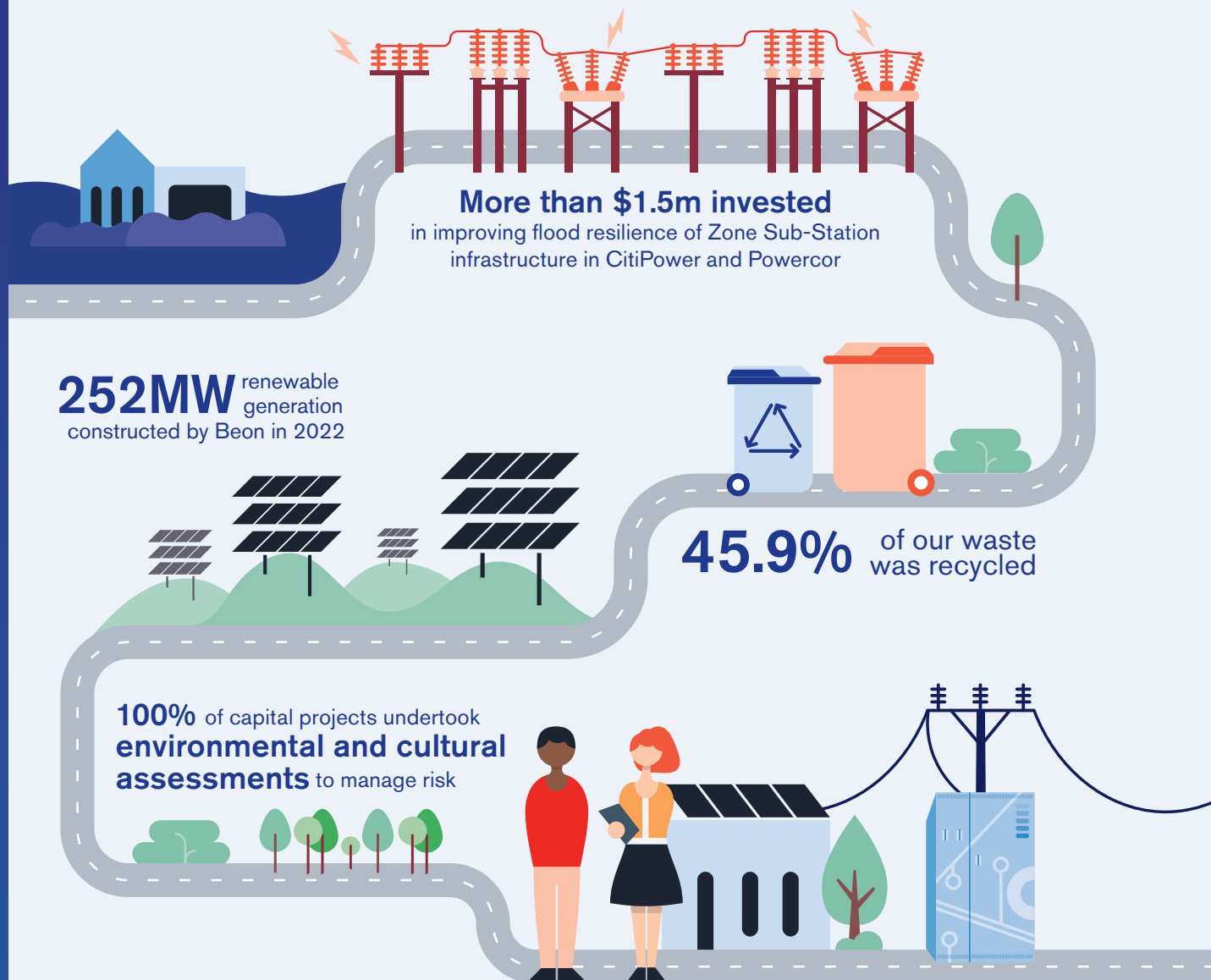
ISO14001 Environmental Management System.

🎯 2026 Target: Certified

✓ 2022 Performance: Certified

🎯 Target ✓ Delivered in 2022 ➔ In progress

Highlights



Network resilience

Within the regional Powercor network, only 11% of powerlines are underground while in the urban CitiPower network, this number is 51%. Extreme heat, wind, lightning and floods can result in damage to assets which affects the reliability of electricity supplies.

With the severity and frequency of extreme weather events increasing, we are working to further consolidate and develop our network protection and capacity so that we minimise the impact on our customers.

Risk based approach

Through detailed risk assessment, we develop coordinated plans to address and adapt to the impacts of changing climatic conditions.

These include identifying hazards to determine risks and their potential impact on our infrastructure, mapping vulnerable locations where events may occur, and adapting our preparation, response and recovery plans to potential natural threats.

In response to severe storm events in 2021, we undertook consultation with customers of both networks in 2022 to better understand their priorities and perceptions regarding network reliability and resilience. Four community roundtables were conducted between April and September and revealed that resilience was understood as being the ability to respond and bounce back from a shock or event, rather than how impacts may be prevented. This further reinforced our priority to ensure that in major events, we aim to reduce the number of customers affected and the duration of any impacts.

Reflections and achievements

Throughout 2022, our network was impacted by a variety of incidents. The east coast of Australia, including the state of Victoria, experienced unprecedented flooding which impacted both CitiPower and Powercor's networks.

Over 170,000 customers experienced outages due to storms and floods in October 2022. Many of the flooded rivers were at least at 1 in 100-year levels (see Case Study: October 2022 Flood Response). Yet, despite these occurrences, VPN still maintained strong network performance.

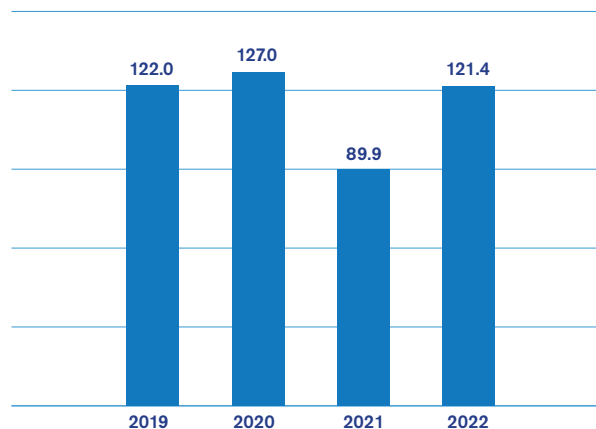
Across 2022, Powercor and CitiPower distributed electricity with a 99.97% and 99.99% reliability respectively, and both achieved their regulated 2022 targets, with unplanned disruption averages

below the target of 124.0 minutes (Powercor) and 24.7 minutes (CitiPower). We report using industry benchmarks and KPIs, including System Average Interruption Duration Index (SAIDI), which reflects outages which are under our direct control but excludes extreme weather events such as storms, bushfires and flooding. See graphs 3 and 4 below.

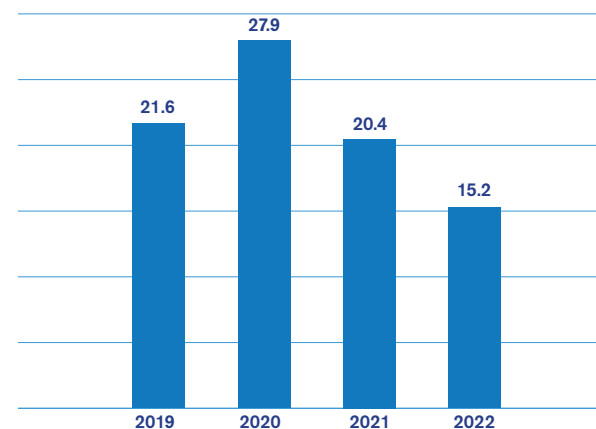
Future commitments to resilience

In 2023, CitiPower and Powercor aim to progress the rollout of the 'Reliability Step Change' program, which will bolster our capabilities and help manage dynamic future energy demands. Additionally, after providing valuable service through reducing customer impact during the October floods, we will be expanding our Fault Detection, Isolation and Restoration (FDIR) scheme in 2023.

Graph 3. Powercor reliability index (SAIDI) 2019-2022, (mins)



Graph 4. CitiPower reliability index (SAIDI) 2019-2022, (mins)



CASE STUDY:**October 2022 Flood Response**

When heavy rainfall caused flash flooding in Melbourne's inner west around the Maribyrnong River and extended flooding in the north and central region, Powercor deployed a range of protection measures across impacted zone substations including building of levees and temporary barriers, real time water level monitoring and de-energisation triggers and associated switching plans to mitigate customer impacts.

In the most affected areas, mobile generation was brought in and response plans were adapted to maintain energy supply to the maximum number of households. This involved Powercor teams and helicopters patrolling impacted network areas to identify risks and enable the rapid reconfiguration of the network to restore power after outages.

For example, 15,728 customers in the regional towns of Castlemaine and Mooroopna lost power when two zone sub-stations were disconnected as flood waters reached threshold levels. Of these, 62% experienced power outages for less than 3 hours due to the immediate action taken by our team to plan, design and execute a highly unique solution to re-route supply to those most impacted.

Powercor deployed a dedicated Mobile Engagement and Response Vehicle (MERV) and team to the evacuation relief centres established in Bendigo and Shepparton to support people displaced by the floods. MERV provides a personal contact point for customers in an emergency situation where they can get updates on the emergency situation and receive electrical safety or connections advice while enjoying a hot cup of tea and recharging mobile phones and small electrical devices like hearing aids.

Extensive proactive communication with customers impacted was deployed through SMS, radio and television broadcasts and social media messaging to warn residents of imminent outages and to provide regular updates on Powercor responses and restoration times. Additionally, we worked collaboratively with a range of emergency services including Victorian Government departments, Victorian Police, Australian Defence Force, State Emergency Services and Country Fire Authority.

The post event review has resulted in further permanent levee construction for at risk zone substations in Castlemaine, Mooroopna, Charlton and Cobram East. Levees are being built to protect against 1:200 year flood levels.



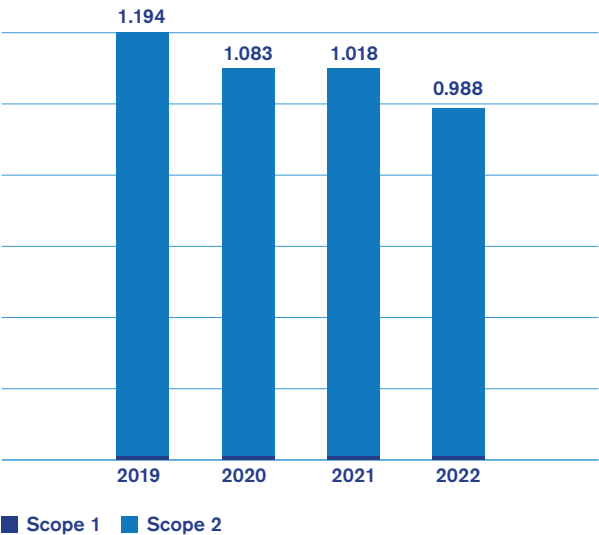
MERV at the Bendigo relief centre where evacuees from the Rochester flooding were provided with customer support and comfort.

Carbon emissions reduction

Under the National Greenhouse and Energy Reporting (NGER) Act (2007), VPN is required to submit an Energy and Emissions Report annually to the Clean Energy Regulator. The NGER scheme calls for companies to report total scope 1 and scope 2 greenhouse gas (GHG) emissions.

Our 2022 Energy and Emissions Report demonstrated a 17% reduction in total GHG emissions against 2019 baseline levels at 0.988mt CO₂-e.

Graph 5. Scope 1 and Scope 2 emissions 2019-2022, (mt CO₂-e)



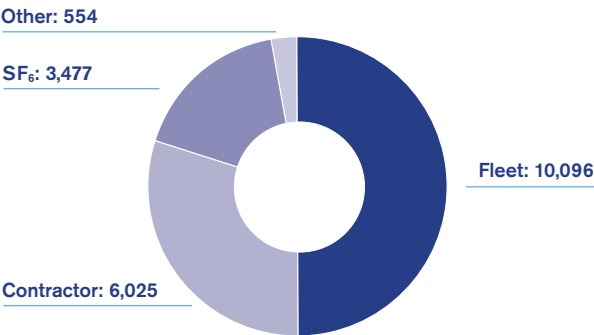
Direct emission sources

As shown in graph 5, scope 1, or direct emission sources, represents only a small percentage of the total emissions portfolio for VPN.

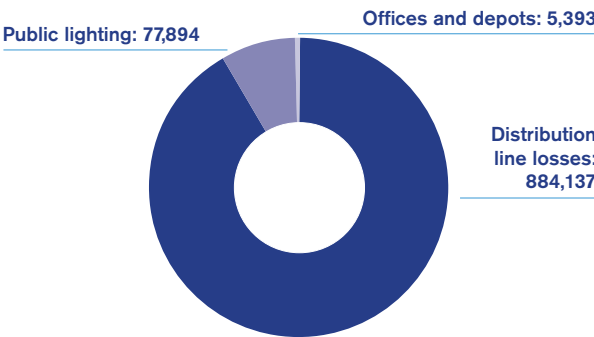
However, our businesses have still made significant progress on reducing these emissions sources through a number of initiatives in 2022:

- replacing diesel and petrol vehicles with 14 hybrid and 2 full electric vehicles
- installing three 50kW DC electric vehicle rapid charger systems and six hybrid vehicle chargers in offices and depots
- installing a 100kW solar system at CitiPower's Burnley depot as the latest of the field depots to convert to solar energy
- offsetting 3,779t CO₂-e through our ongoing commitment to the Greenfleet program.

Graph 6. Scope 1 emission sources 2022, (t CO₂-e)



Graph 7. Scope 2 emission sources 2022, (t CO₂-e)



Indirect emission sources

The main source of emissions and improvements in reducing them have however, come from scope 2 or indirect emission sources.

The key factor in this result was a 17% reduction in distribution line losses, down from 1.062mt CO₂-e in 2021 to 0.884mt CO₂-e in 2022.

Distribution line losses represent 89% of our total emissions portfolio and 91% of our scope 2 emissions. They are defined by an Australian Energy Regulator approved 'loss factor' measuring the energy lost as heat during its movement through our distribution networks. This loss factor is influenced by the generation mix of electricity distributed, the volume of electricity transported, the distance between the generation source and customers, and climatic factors such as air temperature.

While electricity consumption is rising, these system losses are falling as the generation mix of the energy distributed changes in favour of more renewables. By enabling greater penetration of residential rooftop solar as well as large-scale renewable connections, the carbon associated with each unit of electricity we distribute falls. Read more on page 39.

Partnerships with local government authorities to progressively changeout old forms of public lighting with energy efficient alternatives account for a further 8% of the scope 2 emissions.

CASE STUDY:

Beon installed renewable capacity, 2022

Beon continues to support the energy transition by successfully delivering multiple utility scale solar farms in 2022.

The team overcame extraordinary conditions with persistent heavy rain as well as underground rock creating challenges for the construction of the 115MW Metz solar farm in New South Wales which is now fully commissioned. The 110MW Sebastopol solar farm also reached final completion in 2022.

Two projects were constructed for Melbourne Water which manages and protects the city's major water resources and is committed to

reducing net carbon emissions to 50% of baseline levels by 2025.

Beon was engaged to build onsite solar farms to power the Winneke and Eastern Treatment Plants. The 18MW Eastern Treatment Solar Farm in Bangholme produces around 22% of the electricity required to run the plant. While the undulating land for the 9MW Winneke Solar Farm in Christmas Hills, surrounded on three sides by water, required new, adaptive ways of constructing the farms to be developed by the Beon team (pictured here).

Construction also continued during the year on the 245MW Avonlie Solar Farm in New South Wales. This is one of the largest solar farms in Australia under construction and is anticipated to be completed in 2023.



Beon constructed solar farm at Melbourne Water's Winneke Treatment Plant.

CitiPower and Powercor provide efficient, well managed and regulated public lighting servicing 47 local government areas, as well as the Department of Transport. Under the NGER definitions, VPN assumes responsibility for energy consumption by public lighting, classified as Scope 2 carbon emissions within our portfolio.

By the end of 2022, VPN operated and maintained 249,000 public lights, of which 77% had been replaced with energy efficient alternatives. In the past four years over 100,000 public lights have been replaced with energy efficient alternatives with energy sales from public lighting decreasing by 6% per annum.

Our 2022 Energy and Emissions Report showed that emissions from public or security lighting fell by 20% from 0.097mt CO₂-e in 2021 to 0.078mt CO₂-e in 2022.

CASE STUDY:

Geelong street lighting changeover program

Powercor and the City of Greater Geelong are taking a positive step against climate change and are reducing operating and living costs by replacing residential street lighting to energy efficient street lighting.

The Street Lighting Changeover Program is one of the largest street light upgrade programs in Victoria converting all Greater Geelong's 25,000-plus streetlights to LED.

Existing 80-Watt mercury vapour streetlights will be replaced with energy efficient LED luminaires, including new smart PE cells, which are roughly 85% more energy efficient. These upgraded LED lighting installations will deliver an approximate reduction in energy consumption of around 63.5%. The project will reduce carbon emissions for the City of Greater Geelong by about 8,000 tonnes per year.

Stages 1 and 2 of the project involved the replacement of over 20,000 residential and major road lights by November 2022. The remainder are decorative lights that will be replaced in 2023/24.



Teams have replaced over 20,000 streetlights in Geelong with energy efficient LED options to help reduce carbon emissions.

Task Force on Climate-Related Financial Disclosures (TCFD)

As a part of our commitment to transparency and climate disclosures, VPN is aligning with the TCFD recommendations.

The Financial Stability Board (FSB), an international body that was created after the 2009 G20 to monitor the global financial system, created the TCFD to develop recommendations on the types of information companies should disclose to support investors, lenders, and insurance underwriters in appropriately assessing and pricing a specific set of risks related to climate change.

The task force has developed climate-related financial disclosure recommendations designed to help companies provide better information to support informed capital allocation. The recommendations are structured around four thematic areas: governance, strategy, risk management and metrics and targets. These are supported by 11 recommended disclosures that help investors and other stakeholders understand how reporting organisations assess climate-related risks and opportunities.

VPN has engaged an external consultant to identify and develop a roadmap to align with TCFD by 2024. This project involves meeting with key stakeholders throughout the business to identify potential financial risks and opportunities to our systems, assets, and infrastructure, and then define measures to mitigate these impacts.

The roadmap developed will guide our future work to achieve TCFD alignment.



Environmental protection and resource conservation

We execute a comprehensive, internationally certified program of works through our ISO14001 Environmental Management System.

This management system enables us to continually assess our operations against current environmental and cultural risks, legislative and permit requirements. Furthermore, we review any incidents which may have occurred, updates to legislation and stakeholder expectations to identify future risks and opportunities and ensure continuous improvement in how we uphold environmental governance.

Some of the highlights of improvements made to processes supporting the environmental management system are as follows.

Planning for protection

Effective protection of the environment is enabled by the program, MapInsights, which captures the CitiPower and Powercor networks and overlays drawn from the Victorian Planning Provision, Aboriginal Cultural Heritage Register and Information System (ACHRIS) and Department of Environment, Land, Water and Planning (DELWP). These overlays depict areas of vegetation, biodiversity, and heritage (inclusive of Aboriginal Cultural Heritage) significance, so that there is a level of proactive due diligence available to our teams.

In 2022 we improved processes for tracking environment assessments for our capital projects and recruited two new roles to support our work in biodiversity. These roles work collaboratively with our project managers and designers to identify environmental impacts in the project scoping phases and then undertake more detailed assessments either on site or via desktop studies.

In 2023, we aim to engage more proactively with our external stakeholders such as councils, and Parks Victoria to improve efficiencies for obtaining permits, undertake further training for key roles and streamline internal processes.



A screenshot from MapInsights which illustrates different overlays considered in planning.

Improving waste management

In 2022, VPN commissioned Rawtec, one of Australia's leading consultancies working in the circular economy, waste, and resource management sectors, to undertake waste composition assessments on our depots. The objective was to gain an in-depth understanding of the volumes and types of waste we generate.

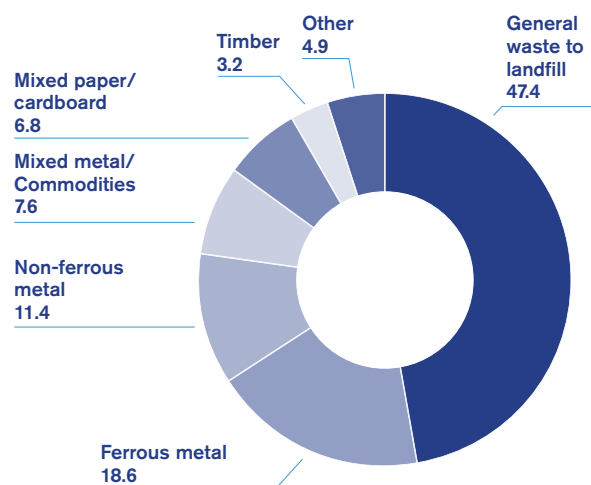
The review assessed our performance over the 2020 and 2021 calendar years and found:

- total waste generated decreased by 13% from 4,444 tonnes in 2020 to 3,881 tonnes in 2021
- total waste diverted from landfill decreased from 48.5% to 45.9%
- general waste to landfill was our largest waste source by weight (1,838 tonnes 2021).

By using the composition data collected during these assessments, we plan to better divert recyclable products from landfill, as well as begin investigating new innovative opportunities for improved waste management.

This information is also assisting in quantifying our scope 3 emissions, with a view to reducing our overall carbon footprint.

Graph 8. Waste composition 2021, (%)



One particular challenge which we identified through the assessment is related to timber landfill diversion. Timber, in particular treated timber and damaged power poles had the lowest diversion rate across our organisation at 24%, due to limited diversion options. In 2023, we will continue to investigate improved options for timber pole disposal and increase employee awareness of the importance of waste segregation in depots and offices.

Land management

VPN owns, occupies and operates facilities where historical activities have resulted in land and groundwater contamination. We have a program of assessment and management for these sites and proactively engage EPA Auditors where required.

In 2019, we developed a 10-year environmental program which is tracked and updated annually. This program is subject to reporting where applicable to the VPN Board Audit and Risk Committee.

Environment audit performance

Our environmental management system is externally audited. In November 2022, one minor non-conformance was identified which related to spill kit inspection processes at depots. As a result, the spill kit inspection procedure has been reviewed and action taken to ensure this is resolved by March 2023.



Empowering communities

Our approach

Being customer and community minded is one of our core values and continuously improving our approach to stakeholder engagement is one of the five strategic pillars guiding how we operate. Every day, our people are active in a wide range of communities ranging from the remote and regional to major capital cities. Often, our people also live in the regional communities they serve.

Stakeholder engagement is captured within a broad range of operational planning including major projects, asset maintenance and new energy solutions as well as our extensive regulatory processes. This engagement seeks to listen to the needs, interests and preferences of stakeholders including customers, to support better decision making by our businesses in relation to project planning, product and service development and customer communication.

Importantly, the potential for bushfires arising from our assets is ranked as our highest risk in our Enterprise Risk Management System due to the catastrophic impacts these events can have on people and communities. It is therefore a major focus of attention, resources and investment annually.

Material issues

Public safety:

We protect the safety of the public from risk associated with the performance of our assets or when exposed to our operations within built environments.

Enabling customer energy choices:

We enable choices in new technologies, which help customers to manage their energy and empower them with knowledge to make the most of their investments.

Electrification and innovation:

We invest in innovation that enables greater electrification of our communities and the integration of distributed energy resources in all their forms.

Energy equity:

We are conscious of various forms of vulnerability including geographic, financial, cultural or resource which affect our customers' abilities to participate in the energy transition, receive equal reliability and quality of supplies or have equal opportunity to address energy cost pressures.

Respect for Indigenous communities:

In the spirit of reconciliation, we acknowledge and respect Traditional Owners as the First Nations people of this land and their connection to country.

Progress against targets

Total renewable capacity on the network

🎯 2026 Target:	4.0GW
➔ 2022 Performance:	2.48GW

Energy literacy

Customer participation in energy literacy programs.

🎯 2026 Target:	2,000 per annum
➔ 2022 Performance:	1,147

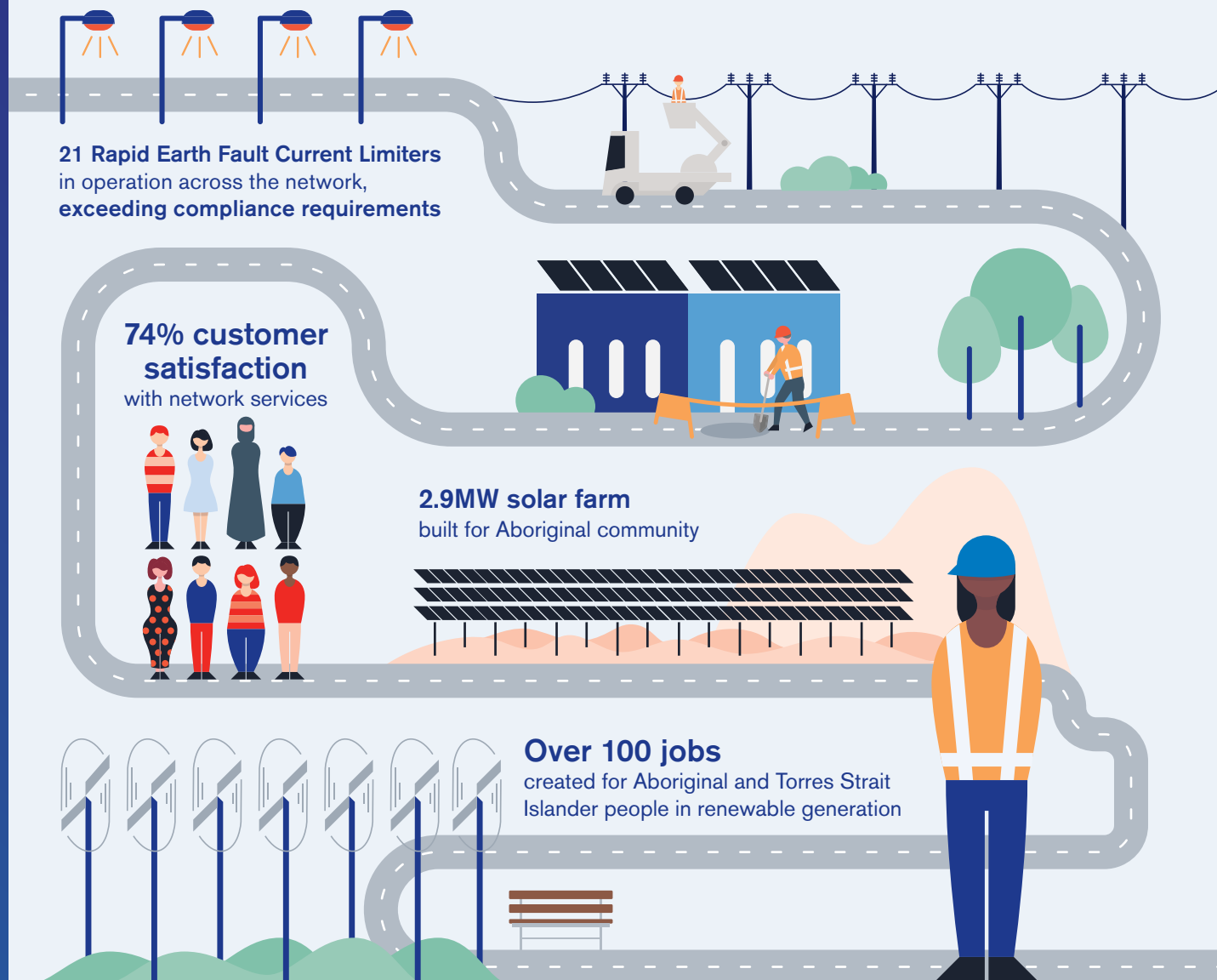
Innovation funding

Value of network and technology investments in innovation: \$25.7 million over 5 years.

🎯 2026 Target:	\$25.7m (over 5 years)
➔ 2022 Performance:	\$6.7m

🎯 Target ✓ Delivered in 2022 ➔ In progress

Highlights



Public safety

We use robust management systems and technologies to minimise risks and keep communities safe, while delivering reliable energy to meet household and business needs. To do this, CitiPower and Powercor have advanced processes in place covering asset maintenance, vegetation management, and bushfire mitigation, which are transparently reported within our Bushfire Mitigation Plan approved by Energy Safe Victoria.

Asset inspection, maintenance and replacement

Innovative new technologies are advancing our approach to maintaining our network infrastructure to reduce the risk of power outages and bushfires.

Our trained and fully qualified inspectors work year-round to check our assets (the poles, wires and other infrastructure involved in supplying energy) and maintain them in line with our policies and Energy Safe Victoria regulations.

Most notably in 2022, we started work under a new pole intervention program which we consider essential for building a safer and more resilient network. Typically, about 210,000 poles throughout the networks are inspected annually as part of a regular cycle. This determines whether poles require any form of intervention, either replacement or staking for reinforcement to maintain their operational integrity. In December 2021 we launched a new pole replacement program, which is more than doubling the number of poles being replaced or reinforced to 34,650 between 2022

and 2026. This represents a 65% increase in pole interventions conducted annually and is coordinated with other regional asset maintenance activities. By the end of the first year of the program in 2022, 7,201 power poles had been successfully replaced or reinforced, exceeding our target of 6,950.

Vegetation management

Strong winds and storms can break or blow trees, branches and bark onto our power lines and lead to power outages and grass fires.

Vegetation management is a key element of our broader bushfire mitigation program. We inspect every powerline, every year to check regrowth,

hazards and clearances, identifying vegetation that requires cutting across the entire network. This inspection work is carried out using Light Detection and Ranging (LiDAR) technology.

Beon Aerial Services operates two helicopters fitted with LiDAR technology to fly and inspect 100% of the CitiPower and Powercor networks each year. The LiDAR data accurately identifies the location of vegetation requiring cutting. This information is interpreted by our experienced internal data analytics team and used to advise specialist contractors who then cut or trim the vegetation away from powerlines.



We use a variety of specialised cutting equipment for vegetation management including mechanical cutting units. Mechanical units can cut challenging, highly vegetated areas quickly and safely.

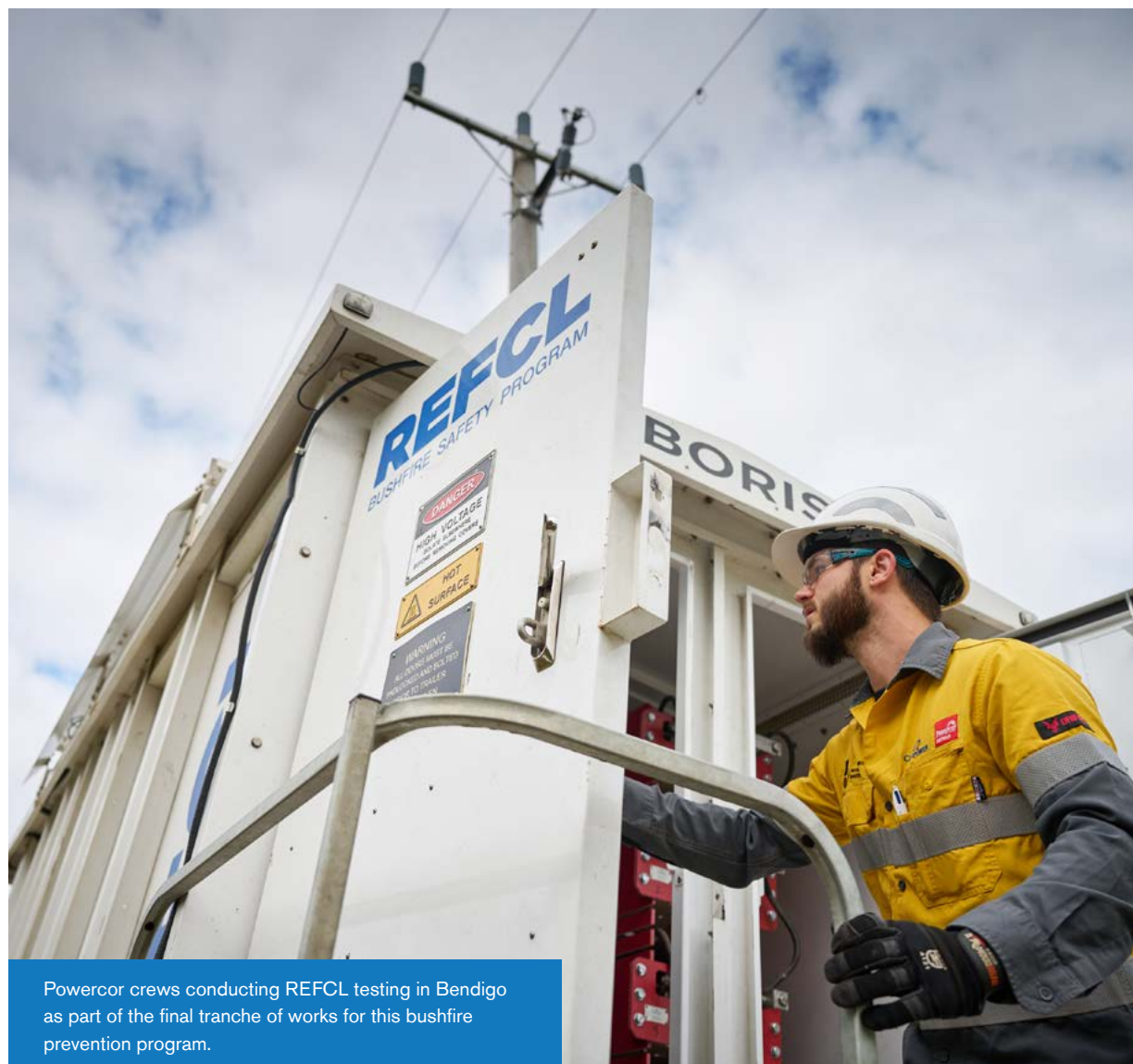
Bushfire prevention

Powercor provides electricity to communities in some of the highest bushfire risk areas in Victoria. Approximately half of our infrastructure is within Hazardous Bushfire Risk areas, as identified by the Country Fire Authority (CFA) Fire Hazard Mapping Project.

In conjunction with our Bushfire Mitigation Plan, and in accordance with our obligations under electricity safety regulations, we are installing Rapid Earth Fault Current Limiters (REFCL) technology across the Powercor network to reduce the likelihood of power line-related bushfires. REFCLs work like a large safety switch. They detect when part of a three-phase power line has fallen to the ground or touches trees and almost instantly reduces the voltage on that line to limit energy into the fault. This means we can substantially reduce fire risk.

This six-year program of work has been one of the most technically complex changes to the electricity industry in more than 30 years. Much of the research and development required to effectively execute this program in Victoria has been undertaken by VPN teams.

By the end of 2022, we had 21 REFCLs in service, protecting more than 17,800km of power lines and 289,000 customers. Work is well progressed on the final remaining REFCL to be commissioned and approved by Energy Safe Victoria by the April 2023 deadline for the entire program of work to be completed in line with 2009 Victorian Bushfire Royal Commission recommendations.



Powercor crews conducting REFCL testing in Bendigo as part of the final tranche of works for this bushfire prevention program.

Social risk assessments

We plan our field operations to promote public safety in and around our works by managing noise, vibration, and dust as well as disruptions to pedestrians, traffic, and neighbouring properties. We are also improving our response time when hazardous situations are reported by the public.

In 2022, social risk assessments were conducted for 67 CitiPower and Powercor field-based projects ranging from major network upgrades to customer-initiated connections. Extensive stakeholder engagement support is coordinated with these projects where disruption may cause social, environmental, or economic risk to neighbours and customers. As a result, no projects were delayed or changed because of community opposition.



Community consultation in Gleneagles Reserve Tarneit to support the planning and construction of a neighbourhood battery to support reliability and solar exports in the local community.

Enabling customer choices

The energy transition has led to a major shift in the model of electricity generation and distribution. The historic one-way flow of energy has been succeeded by a two-way distributed generation model. With this shift, the role of CitiPower and Powercor has expanded from energy distribution to a Distribution System Operator (DSO). Our purpose as a DSO is to ensure all forms of distributed energy resources are integrated efficiently and flexibly into our network, whilst maintaining reliable and resilient service delivery.

The Energy Security Board's *'Post 2025 Future of the National Energy Market'* describes the transition away from thermal generation, towards greater involvement of renewable generation. Expanded climate policies are anticipated to lead to a greater proportion of small-scale generation, compared to historic conditions which largely depended on large-scale generation from coal fired power stations.

Powercor services a region that includes 4 of the 6 declared Renewable Energy Zones in Victoria and more than 50 large-scale solar and wind farms are connected directly to the distribution network. In addition, more than 200,000 residential and commercial customers of CitiPower and Powercor have also been active installing rooftop solar systems. As a result of extensive network upgrades conducted in 2021 and 2022, more than 95% of new solar customers are approved to export any excess power into our networks.

Graph 9. Installed renewable generation 2019-2022, (GW)

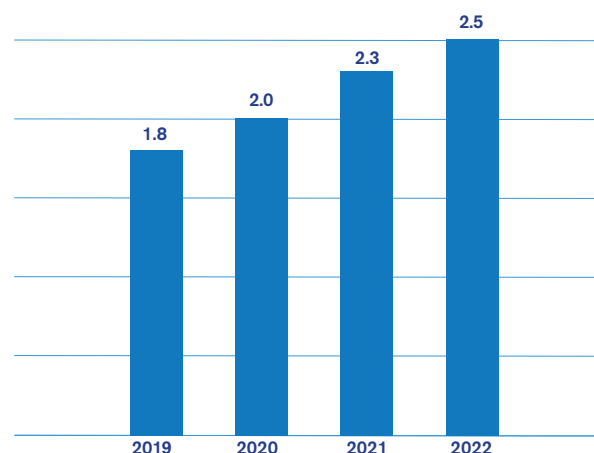


Table 2. Installed capacity by renewable generation type, 2022

	Powercor	CitiPower	Combined
Generation type	MW	MW	MW
Residential Solar	807	72	879
Non-Residential Solar	288	28	316
Large-scale Solar	684	5	689
Large-scale Wind	593	0	593
Total	2,372	105	2,477

The total installed capacity of renewable generation on our networks – large and small - is 2.5GW (see table 2). This is more than the capacity of the largest coal-fired power station responsible for Victoria's baseload supplies.

Meanwhile, new trader services are coming into the energy market, creating opportunities for customers to participate in new ways. For example, aggregators promoting virtual power plants for customers with solar and batteries behind the meter. We contribute to this new market by signalling network conditions, such as available capacity or areas of constraint, that influence how these third parties trade and move electricity through our networks.

To continue delivering our services in a secure way, we are working in coordination with the Australian Energy Market Operator (AEMO) and investing in technology and innovation to expand our network capabilities and resources to perform our new DSO roles.

Demands on the energy system are increasing rapidly as new climate change policies at both federal and state levels drive greater electrification of homes, businesses and transport and renewable energy uptake. Managing these changes in local supply and demand are fundamental to Victoria's broader energy and climate policies and create more opportunities for our business.

Through one of our key organisational initiatives, Project Empower, CitiPower and Powercor have been working to build the network systems and capabilities necessary to support the energy transition and to benefit our customers and the wider community. This cross functional project team involves resources in engineering, planning, information technology, field operations, customer services, regulation and stakeholder engagement.



Tim and Mary Ann Holt, landowners in the Mount Gellibrand Wind Farm connected to the Powercor network. The family recognises the broad benefits of renewable energy and are proud to play a role in Victoria's renewable energy future.

During 2022, this extensive program of works included:

- delivering two community battery programs in Tarneit and in association with Yarra Energy Foundation at Fitzroy North, to demonstrate the localised benefits of distributed energy storage
- conducting an innovative network tender for local capacity services to promote non-network solutions to building greater capacity
- collaborating in a security system working group with the Victorian Government planning for minimum and maximum demand scenarios on the network
- introducing new technical compliance systems for solar connections to improve performance for customers and voltage management on the network
- developing Dynamic Voltage Management Systems (DVMS) to support voltages across the network and improve the level of technical compliance of consumer energy resources
- defining our approaches to prepare for greater levels of electrification for public transportation and electric vehicles
- advocating in the industry and with governments for policies to support the renewable transition and customer choices.

CASE STUDY:

Innovation to maximise wind and solar in our networks

We have developed a real-time solution with industry partners that allows more large-scale wind and solar to enter the grid when wind and sun are abundant. This system supports clean energy by creating a more attractive market for renewables to be developed.

Our High Voltage Distributed Energy Resource Management System (HV-DERMS) lets more generators connect to the network, maximising the use of the same network infrastructure without requiring upgrades to poles and wires.

The system allows us to dynamically adjust the energy output of generators, delivering a greater proportion of energy from renewable sources and saving wind and solar farms potentially millions of dollars in connection costs. It also allows the network to operate safely and reduces down-time for existing generators, helping to minimise disruption from outages or routine maintenance.

HV-DERMS started coming online in March 2022 with 36 existing wind and solar generators totalling 1.07GW of capacity in the system.



More than 50 large-scale solar and wind farms are connected directly to the Powercor network.



CitiPower partnered with the Yarra Energy Foundation to install a 284kWh community battery in Fitzroy North in 2022. This was the first inner-urban battery in Melbourne and supports an estimated 200 homes.

Investing in energy storage

As power becomes more distributed and supply more variable, battery storage needs to be distributed too. We have conducted industry leading research, network-wide feasibility studies and subsequently implemented this new energy storage technology.

With a major funding contribution by the Victorian Government Neighbourhood Battery Initiative, CitiPower and Powercor undertook a novel study into the feasibility of neighbourhood batteries in collaboration with 12 local councils and community energy groups.

The Electric Avenue Feasibility Study scanned regions across 65% of Victoria to identify 30 preferred locations for neighbourhood batteries and in the process, identified insights into their location, design and planning that can benefit future projects.

While neighbourhood battery projects are highly contextual and depend on local factors, we have developed a systematic process for neighbourhood battery projects, including how to make these into valuable community assets. With the amount of energy storage that will be required in the market to support the transition to renewables, we believe there is scope for a range of battery solutions owned by either networks, communities, local government or other energy market participants.

The feasibility study outcomes are now informing our proposals for community battery rollouts being led by state and federal governments. The published results have also been reflected in CitiPower and Powercor advocacy work in relation to the Australian Energy Regulator's ringfencing waiver for distributed battery projects.

Supporting energy literacy

We seek to empower customers, their families, communities and businesses with the necessary tools to achieve their individual energy priorities – whether that's reducing energy costs, decarbonizing their energy footprint or investing in electrification and renewable energy.

As part of this commitment, we provide our customers with timely and targeted information on their energy usage, including opportunities to access new energy choices and save on their energy bills.

Accessibility is always top of mind when developing energy literacy materials for our customers. We aim for all key campaigns and communications to be widely accessible to the diverse communities that we serve, and that includes making information available in their language of choice.

Prior to 2022, energy literacy programs were delivered through personal interactions between volunteers within our networks and community members involved in grassroots initiatives. Following a trial in 2021, we developed and moved to a digital delivery model for this program in 2022 with two campaigns:

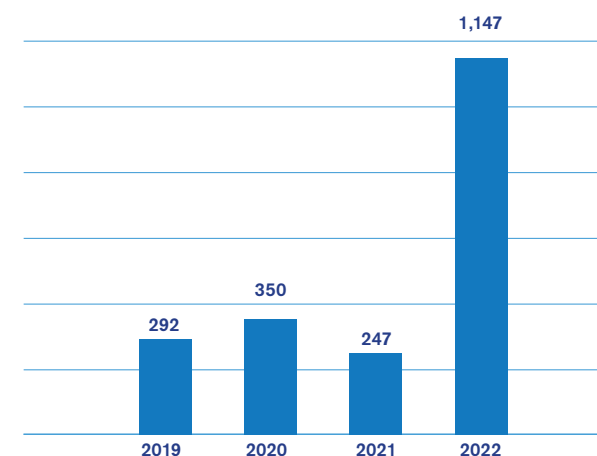
- program targeting communities in seven culturally and linguistically diverse (CALD) communities to promote energy efficiency information, managing power bills and opportunities for solar connections

- welcome pack for new customer connections promoting electricity consumption advice, network tariff and electricity bill structure information, and information available to support customer research into rooftop solar, batteries and electric vehicle investments.

The CALD program was conducted over the 2021-2022 summer coinciding with the end of COVID-19 lockdowns. The campaign was accessible in seven languages- Arabic, Chinese, Greek, Hindi, Punjabi, Vietnamese and English – and shared hard copy information and social media assets through the networks of community leaders. This reportedly reached an audience of 935,000. Learnings associated with copywriting for cultural sensitivities, distribution, training and content are being taken into consideration in energy literacy programs to be deployed in 2023.

The new customer campaign targeted around 31,000 customers via electronic direct mail. Digital analytics show the package was opened and reviewed by 73% of all recipients and 4% or 1,147 went on to click through to our website for further information. It is this 1,147 that we count towards the energy literacy program participation as they have consciously chosen to engage in the information provided.

Graph 10. Energy literacy program participation 2019-2022, (numbers of participants)



Respecting Indigenous communities

During 2022, Beon launched an Innovate Reconciliation Action Plan (RAP) as the next step in a journey already begun to support local indigenous communities. The RAP aims to build meaningful and mutually beneficial relationships with Aboriginal people, communities and organisations in the communities and regions where the business operates.

Over the past few years Beon has been actively engaging Aboriginal and Torres Strait Islander people in its training and employment programs on the solar farms it has built, having employed almost 200 Aboriginal women and men across multiple projects.

Beon has now strengthened and formalised this approach under the Innovate RAP which targets:

- learning within the business by supporting our workforce to increase their understanding of and respect for Australia's First Nation's cultures, histories and their ongoing struggles and achievements
- opportunities with ensuring Australia's First Nations Peoples participate in and benefit from renewable energy projects that Beon builds on their lands and in their regions.

CitiPower and Powercor have committed to the development of a RAP that will be the subject of further consultation and collaboration in 2023. Based on preliminary research and engagement in 2022, this is expected to include the creation of employment and business opportunities, the development and implementation of improved cultural heritage management, and strategies to support Aboriginal communities in pursuing renewable energy projects.

In order to ensure these objectives are met, an Aboriginal engagement team has been established in addition to previous resources focused on cultural heritage management within our operations.



Beon launched its RAP during NAIDOC Week 2022. Shaurntae Lyons, Aboriginal Community Engagement Coordinator, explained the impact of Beon's engagement within her local community to the assembled team.

CASE STUDY:**Indigenous community solar installations**

In September 2022, a VPN joint venture partner completed the design and construction of one of the largest off grid systems in South Australia to provide reliable power to 5 remote Aboriginal communities.

The Central Power House located in Umuwa on Anangu Pitjantjatjara Yankunytjatjara (APY) lands features a 2.9MW solar farm with 1MWh battery storage.

This solar farm will generate 40% of the energy used for this private high voltage network, increasing energy self-reliance and saving approximately 1 million litres of diesel and \$1.2 million each year.

By working closely with local contractors and suppliers throughout this project, 30% of onsite labour was sourced through local Indigenous businesses to develop energy sector skills. Two trainee positions were also created for Aboriginal students to work two days per week in the office for a year to gain work experience.



The natural environment surrounding the site of the now constructed Central Power House in Umuwa South Australia.



Chris Cornish, Thermography Lead, uses new drone technology to conduct aerial asset inspections.

Innovation and technology

As part of our mission to build a network for the future and support greater electrification, we continuously invest in new technology and innovation. Across our networks, modern devices and equipment are being scaled to improve both our organisational resilience, as well as meet our customers' changing needs.

We are also engaging constructively in industry debates to influence developments that are good for customers, the industry and our business.

We have developed a Research and Development (R&D) fund to help inspire our businesses to discover new ways of using both technical and non-network solutions to build capacity and capability while keeping the costs down for electricity consumers. This fund also supports digital innovation projects that drive efficiencies across the network, such as aerial drone asset inspections.

In 2022, we increased our investment in digital innovation by 67% from the baseline of \$4 million in 2019 to \$6.7 million.

These investments include:

- rolling out Early Fault Detection devices to improve safety and reliability on our networks
- developing a 1MW portfolio of non-network solutions across our network to improve reliability and DER export capacity
- designing our solutions for community batteries
- continuing our residential demand management programs which saved approximately 0.5MW in 2022.

CASE STUDY:

Automatic Circuit Reclosers

We have installed a new generation of network safety devices in a trial to improve reliability while also protecting communities in Blackwood and Apollo Bay.

Automatic Circuit Reclosers (ACRs) represent leading-edge technology. Led by the Powercor Protection and Control team and developed in partnership with multiple vendors over the past two years, the ACRs utilise innovative new algorithms which quickly identify faults on networks serviced by the equally innovative Rapid Earth Fault Current Limiter (REFCL) technology. REFCLs function as a safety switch to shut off power to power lines that have experienced a fault and reduce the likelihood of power line-related bushfires.

Crews installed 17 new-generation ACRs on powerlines protected by REFCLs in 2022. The new ACRs aim to improve restoration times for customers in these circumstances by making it easier to locate the fault. They narrow down fault locations, reduce field crew patrol times, and allow network controllers to switch the power back on for customers who might be on unaffected parts of the line.



Responsible governance

Our approach

A tiered governance system has been developed to oversee and manage our approach to Environmental, Social, Governance (ESG) issues and actions. This involves our Board, executive, senior management and operational personnel and utilises existing risk management, finance and procurement governance systems to ensure a high standard of compliance.

Material issues

Sustainability management and governance:
We provide effective governance of sustainability strategy and delivery at the highest levels within the organisation.

Financial, risk and corporate governance:
We maintain high standards of governance to monitor compliance with financial, legal and other obligations and enable us to meet the expectations of our stakeholders in line with our policies and values.

Cyber, privacy and data security:
We proactively work to protect our network operational systems, company and consumer data and digital systems from cyber threats.

Responsible supply chain:
Effectively managing environmental and social risks within our supply chain by enforcing appropriate procurement policies.

Workplace behaviour and employee conduct:
Employees act with integrity, treat each other with dignity and respect, and uphold our values.

Progress against targets

Board and ESG Committee oversight of risk and compliance framework

🎯 2026 Target:	5 Board meetings 4 ESG Committee meetings annually
➔ 2022 Performance:	4 Board meetings 3 ESG Committee meetings

Holding our employees accountable for our values and Code of Conduct

🎯 2026 Target:	Annual performance management process
✓ 2022 Performance:	Annual performance management process

Number of critical cyber security breaches on our networks' operational technologies

🎯 2026 Target:	0 Cyber breaches
✓ 2022 Performance:	0 Cyber breaches

🎯 Target ✓ Delivered in 2022 ➔ In progress

Highlights

VPN Board ESG Committee established



Participated in national energy sector **cyber security** exercise facilitated by federal government

1,758 employees completed ESG training

Modern Slavery Statement reviewed and further enforced through procurement strategies



Updated **enterprise level management system** to align with ESG material issues



100% of employees assessed against company values, as part of **annual performance management** process

Corporate governance

Our Board of Directors is responsible for the corporate governance and strategic direction of VPN, including our sustainability performance. The Board works with executives and senior management to manage risk, optimise business performance and maintain high standards of ethical behaviour and legal compliance.

Our board met four times in 2022 compared to the usual five. Due to travel restrictions for some Directors, it was resolved by the Board to combine the November budget meeting with the December Board meeting into a single event.

Our new Board ESG Committee was approved in March 2022 and held their first ESG Committee meeting in May 2022.

Our ESG Steering Committee comprises Executive Management Team members and has direct oversight of our materiality and assessment,



strategy and target development, sustainability reporting. It reports to the Board ESG Committee on both progress and any recommended updates to our approach. The Committee met three times during 2022.

The committees are informed by an internal dashboard tracking and reporting progress against our sustainability commitments and targets.

Following the launch of the *Sustainability Framework 2022-2026* in May 2022, a training program was released in order to raise the awareness of and engagement in ESG matters amongst all our people. Pleasingly, 1,758 or 83% of our employees voluntarily participated in the online training module. This is now also undertaken as part of standard induction training for all new starters in our business.



Enterprise risk management

All business risks, including sustainability related risks, are assessed, prioritised and managed under our Enterprise Risk Management Framework and overseen by the Board Risk Management and Compliance Committee. Our Framework provides holistic oversight across our entire organisation, providing centralised visibility and management of risks to the company, its finances and operations.

During 2022 we:

- shared our Sustainability Framework with our business' risk champions
- updated our enterprise risks to include ESG material topics and commitment as part of risk profiling
- updated our risk appetite statements to further incorporate ESG matters and objectives within the Framework.

Cyber, privacy and data security

Our cyber security program is continuously improving to enhance reliability and resilience of the network, protect consumer data, and reflect changing conditions. We manage cyber security on both our corporate IT systems and on our electrical networks to enable confidentiality, integrity, network availability and safety. We continue to invest heavily in digitisation, innovation, and capability to protect our power networks from the threat of cyber-attack.

Protecting sensitive data and networks from cyber threats has gained in importance over 2022 particularly in the context of several high-profile cyber breaches in various industries. In 2022 our business experienced zero cyber security breaches.

We publish a range of security metrics, to measure our performance, proactively identify areas needing improvement, and keep our Board and regulators informed. We have set higher standards for ourselves and expanded our methodology to include new items that require more complex changes.

Protecting customer data

Protecting sensitive data and customer information is a key objective of our cyber security strategy. In 2022, there was a significant increase in malicious activity in Australia that resulted in customer data breaches across a number of industry sectors,

including energy. Following these major breaches in other sectors, we undertook a comprehensive review of our customer systems and controls that protect sensitive customer information from disclosure to assess our risk exposure.

Some key controls that protect our customer data include:

- our systems are protected by a set of layered defences that allow us to reduce the likelihood of data breaches to a manageable level
- employees are trained to act as a first line of defence, and are aware of their obligations under the Privacy Act
- we actively purge customer and other sensitive data that is no longer required to limit the consequence of a breach
- the effectiveness of our controls protecting customer information are regularly tested through our cyber assurance program, including independent external audits
- up to date privacy policies, information classification standards and data retention policies
- strong governance via our Privacy Governance Forum - regularly bringing the Privacy Officer, Cyber-security and Legal together to discuss and make decisions on Privacy related matters
- prioritising works associated with extreme risk scenarios to maximise our level of preparation and protection.

Cyber security management

Our Information Technology team has implemented a process to proactively identify risk, including security risk. This includes a formal risk assessment and treatment plan for risks that are identified. We also assess all technology change for security impacts as part of our Architecture Review Board (ARB) in order to verify we are secure by design.

New systems are penetration tested as part of the change process which includes privacy impact assessments.

Escalating demand for cybersecurity assurance materials and consultation arising from federal, state and industry regulators was one of the key challenges faced in 2022. We also observed an increased number of critical vulnerabilities present in software globally, and a number of significant data breaches locally enabled by the availability of hacking tools that require lower levels of capability to use.

Preventing complacency is an ongoing requirement, prompting our cyber awareness program to keep employees engaged and proactive when it comes to securing our digital and physical environment. We acknowledge that our controls and processes need to regularly evolve to guarantee we are protected from new and emerging threats. Internal and external governance and oversight of our function has been established so that we are managing our cybersecurity risk appropriately.

Cyber Security Assurance Plan

Our Cyber Security Assurance Plan was developed in 2021 in consultation with independent specialists from Ernst and Young and outlines a program that we run each year to independently assess our capability and controls.

This includes external assurance, Australian Energy Sector Cyber Security Framework attestation to benchmark our capabilities (now a Security of Critical Infrastructure Act obligation), control health checks, and cyber simulations.

This plan includes the requirement for all employees to undertake cyber security training within three months of joining the company. Monthly cyber communications are sent to all employees and contractors to remind them of the action they are required to take as an effective first line of defence.

Approximately 150 of our people also attended live educational cyber sessions run by the Technology and Security team during 2022 and 55 enrolled to obtain a micro-credential in cyber security through a partnership with La Trobe University.

Workplace behaviour and conduct

We identify the importance of acting in a fair and responsible manner, with integrity and being honest as important to our business.

We have no risk appetite for fraud, bribery and corruption and other deliberate breaches of financial controls. Our Fraud and Corruption Policy commits VPN to maintaining an anti-fraud and anti-corruption culture in the organisation so that everyone who works in or with the company is aware of the risk of fraud, of what constitutes a fraud and the procedures for reporting it.

Our Employee Code of Conduct was updated in 2022, and describes the behaviours expected by our employees and in alignment with our values.

We are committed to the protection of individuals who disclose information about illegal or improper conduct occurring within our business. Details of how to report incidents are included in our Whistleblower Policy and on our website. This includes processes to report incidents through our independently-run Speak-up Anonymous line.

Our supply chains

We work hard to choose the right suppliers and take into account a range of non-financial factors including safety performance, labour practices, values alignment, and community contributions.

We understand our responsibility extends beyond our business, to the third parties supplying us goods and services so we can deliver our services.

Our operations are varied, and we rely on at least 1,188 active suppliers to deliver the products and materials we need to deliver our services.

Of these, 98% are located in Australia, with the majority in Victoria. A small number are located overseas in Canada, China, United Kingdom, Ireland, New Zealand, Sweden, Switzerland, Israel, the Netherlands and the USA.

Managing modern slavery risk

Since our first annual Modern Slavery Statement in 2020, we have put a high focus on improving our knowledge of modern slavery and the associated risks within our supply chains. We will not tolerate any form of modern slavery in our business, or knowingly conduct business with anyone who does.

During 2021 we conducted an analysis of our operational activities and supply chain and found our greatest modern slavery risks occur in our supply chain.

- Our top three key risk sectors are construction, electrical equipment and employment services. The construction and electrical equipment sectors have risks associated with long and complex supply chains including overseas labour, material extraction and manufacture.
- While VPN largely sources labour from Australian companies where modern slavery risk is typically low, the direct impact of employment services on people means this sector carries an inherent modern slavery risk.
- Our geographic modern slavery risks are low, as 98% of VPN's suppliers are based in Australia which features democratic governance, strong rule of law, minimal internal conflict and healthy economic development.

Following this analysis, we have taken several actions to evaluate and control modern slavery risks from within our supply chains:

- completing risk assessments of our supply categories and suppliers
- refreshing the policy in early 2022 to understand if there is any change to risk factors in our supply chain
- publishing a new Supplier Code of Conduct in June 2022 so our suppliers are aware of their labour and human rights obligations and minimum ethical standards including discrimination
- drafting our Sustainable Procurement Statement for launch in 2023
- updating policies, procedures, procurement contracts and supplier contract clauses to embed the consideration of modern slavery risks into our normal business processes.

Our suppliers are required to tell us as soon as they become aware of any actual or suspected slavery or human trafficking in their organisation and in their supply chain. In the event we identify an instance of modern slavery within a specific supplier's operations or supply chain, we will work with that supplier to remediate the issues and risks identified in our assessment. When we can't achieve a satisfactory resolution, we will implement other measures, including terminating our relationship with the supplier.

There were no modern slavery risks raised for remediation in our supply chain in 2022.

Sustainability metric performance summary

Focus areas	Metric	Unit	2019 - Baseline	2020	2021	2022	2026 Target
Safe and equitable workplaces	Fatalities	No.	0	0	0	0	0
	Significant (high potential) incidents	No.	3	2	5	0	0
	Employee satisfaction re wellbeing and mental health (Employee Opinion Survey)	%	N/A ²	N/A ²	73	79	75
	Females in employment	%	21.3	22.1	22.0	21.0	25.0
	Females in management roles	%	15.0	18.0	21.7	21.0	22.0
	Inclusion & Diversity index outcomes (Employee Opinion Survey)	%	N/A ²	N/A ²	79	84	75
Environmental and climate resilience	Outperform targets for average minutes off supply per customer for unplanned outages System Average Interruption Duration Index - Powercor	minutes	122.0	127.0	89.9	121.4	124.0
	Outperform targets for average minutes off supply per customer for unplanned outages System Average Interruption Duration Index - CitiPower	minutes	21.6	27.9	20.4	15.2	24.7
	ISO14001 Environmental Management System certified	-	Certified	Certified	Certified	Certified	Certified
	Reduce both direct and indirect ¹ carbon emissions including distribution line losses based on 2019 baseline	mt CO ₂ -e	1.194	1.083	1.018	0.988	0.836 ³
Empowering communities	Total installed capacity of renewable energy generation on our networks	GW	1.75	1.96	2.29	2.48	4.00
	Customer participation in energy literacy programs	No.	292	350	247	1,147	2,000 (1,000 per network)
	Value of network and technology investments in innovation - over 5 yrs	\$m	4 ⁴	N/A ⁵	N/A ⁵	6.7 ⁴	25.7
Responsible governance	Board meetings per annum	No.	5	5	5	4	5
	ESG Committee meetings per annum	No.	N/A ⁶	N/A ⁶	N/A ⁶	3	4
	Holding our employees accountable to our values and Code of Conduct	-	Annual performance management process	Annual performance management process	Annual performance management process	Annual performance management process	Annual performance management process
	Number of critical cyber security breaches on our networks' operational technologies	No.	0	0	0	0	0

¹ Indirect and direct carbon emissions based of *National Greenhouse Energy Reporting Regulations 2008* definition of Scope 1 and 2

² Not applicable as these questions were not part of the Employee Opinion Survey during that year

³ 30% reduction in carbon emissions by 2030 from a 2019 baseline

⁴ Annual spend on innovation and technology

⁵ Not applicable as the target period for innovation investment is 2022-2026

⁶ Not applicable as the ESG committee was formed in 2022



For further information visit:



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