



# Delivering for our communities

Annual Delivery Report 2023



Ngā Ihirangi

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He mihi nā te tiamana

## Message from our Chair

Tēnā koutou, e ngā kiritaki me ngā hapori hirahira.

Greetings to you, our valued customers and communities.

The end of March 2023 marked the successful completion of our customised price-quality path (CPP), an ambitious, five-year investment programme to connect our communities now and into the future.

Backed by the support of our customers, who told us they wanted a safe and reliable network that supported regional growth and enabled their future energy choices, our CPP journey began in 2018. Since then, our programme has seen us invest in major projects, renewals and maintenance, vegetation management and the introduction of new systems, technology and processes to enhance our performance and, importantly, improve the experience of our customers.

Working collaboratively with our communities and partners has been key to achieving better outcomes for our customers. This included designing our delivery plans in a way that minimised the disruption caused by planned outages to complete our work safely and providing timely and tailored communications and information.

We're extremely grateful to our customers for their patience and understanding throughout the delivery of our programme – we couldn't have done this without their support.

Delivering on our promise to our communities hasn't come without its challenges. Our ability to mitigate risk and evolve to deliver despite many challenges posed by our changing operating environment, such as the COVID-19 pandemic, supply chain issues and skills shortages, and factors outside of our control such as the increasing frequency and severity of extreme weather, is a strength we developed throughout the journey.

### Highlights of our five-year delivery include:

- Achieving ISO55001 certification that recognises our asset management is world class.
- Replacing or reinforcing approximately 21,876 poles, and 906km of overhead line replaced.
- Achieved the CPP objective of stabilising network quality performance.
- Invested \$828 million in network renewal and growth during the past five years.
- A total of 17 major (\$5m+) infrastructure projects delivered, new solutions found, alternative plans underway or being investigated.

### Key achievements in CPP Year Five

CPP Year Five saw the completion of major projects, as well as pole and line renewals, and technology upgrades throughout the communities we serve.

In May 2022, we achieved a key CPP deliverable of gaining ISO55001 certification – the first electricity distribution business in Aotearoa New Zealand to do so, signifying our position as a world-class infrastructure owner and asset manager. This makes us well placed to help lead New Zealand's sustainable energy transition.

Following years of planning, industry consultation and community engagement, our \$43 million South Waikato National Grid Connection began delivering for communities in the region in March 2023. Benefiting more than 11,500 customers, this connection was the largest of our CPP projects. Along with providing capacity to power the growing number of homes and businesses in the region, it will support customers' changing use of electricity.

In western Bay of Plenty, Mount Maunganui's Triton substation has been rebuilt and modernised to ensure on-going security and reliability of power for the growing area. The upgrade reduces the risk of power outages for around 4,000 customers, enabling surrounding businesses, including the Port of Tauranga, to expand their operations and increase electrification in line with decarbonisation goals.

Further south, our Whanganui customers are benefiting from a new high voltage switchroom at our Peat St substation, which has been built 1.8m off the ground to safeguard it against future flooding and increase the resilience of the city's power supply in times of escalating climate uncertainties. Added to that, during the past year, almost 8km of cabling has been installed throughout the city, giving us another alternative to restore power quickly and safely, including to critical hospital and CBD services, in the event of an outage.

Multi-year upgrades in Palmerston North and Inglewood, in Taranaki, also concluded, providing a secure and resilient power network for their communities going forward. As these large projects finished, work to secure the backbone of our electricity network – the likes of power poles, conductors and crossarms – continued throughout our smaller towns and rural communities. In CPP Year Five, our team completed 76 overhead renewal projects worth almost \$56m – meaning fewer interruptions to our customers' power supply.

### Responding to challenges

Ensuring we provide a quality power supply to our customers is important to us, which is why we have worked hard to meet our regulatory targets for both planned and unplanned outages. We are pleased that the benefits of our investment in network renewals, proactive vegetation management and automated technologies have helped to reduce the number of faults and consequently the number of unplanned outages.

Numerous storm events, culminating in Cyclone Gabrielle, have made the past year the most challenging in recent history on our network. We are therefore disappointed to have exceeded our target for the duration and frequency of unplanned outages in our final year. It is clear the effects of climate change will drive an increasing need for careful planning and investment to provide a reliable and resilient electricity supply for our customers into the future.

We delivered our CPP programme despite the challenges posed by COVID-19 and the associated impacts of rising costs, supply chain delays and skills shortages. To mitigate the risk to our supply chain, we took steps to safeguard the supply of equipment that is difficult to source or has long delivery lead times, including transformers and critical protection and control equipment. Our new enterprise management software, delivered earlier in the CPP, enabled a detailed assessment of equipment risk and repair times, that led to purchasing a stock of more than \$3 million of critical spare network equipment. This helped us to better manage costs associated with rising inflation and ensure equipment was readily available for repairs to restore power to our customers.

The benefits were evidenced by our response to February's Cyclone Gabrielle, which impacted more than 107,000 of our customers – about a third of our network. We received numerous positive messages through social media from those impacted, as well as complimentary feedback from retailers, councils and Civil Defence, showing appreciation for our hard work and that of our field crews, and for the regular updates and flow of information we provided publicly.

A massive push from our team and our service providers was required in a short timeframe to make up lost time as we approached our project deadlines, and we congratulate the efforts of our team and crews who worked tirelessly to repair cyclone damage.

### Delivering in a different way

A lot has changed since we started out on our CPP journey, and we have adapted and evolved our approach during this time to ensure we get the best outcomes for our customers. The delivery of our major projects is an example of how we have challenged our thinking during the past five years and, for some projects, amended our approach to deliver a better, more cost-effective and time critical outcome for our customers.

As technology has advanced, we have been increasingly exploring non-network options to ensure our customers stay connected. These alternative solutions will ultimately help keep costs down and provide the best outcomes for our communities, some of which are based in remote areas where building infrastructure is costly. In December 2022, we partnered with solarZero, whose system is a virtual power plant made up of hundreds of community-based smart energy storage and solar generation systems on homes. Using this technology, solarZero will provide us 1MW of network support to help maintain electricity supply to customers in the northern Coromandel Peninsula during peak consumption times – primarily busy holiday periods – when the level of demand is greater than what our electricity network was originally designed to deliver.

Delivering in a different way also means taking advantage of innovative technology that's constantly evolving to the benefit of our customers. Line Fault Indicators (LFIs) are being installed on power lines throughout our network, providing real time visibility to our Network Operations Centre. LFIs are a part of a wider rollout of automation technology, including increasing the remote control of switching points, to be able to get the power back on quicker in the event of an outage.

### Future ready

Five years on, it's clearer than ever that electrification is to play a major role in this country's road to reducing emissions and building a more sustainable future for all New Zealanders. We're confident the upgrades, renewals and modernisation work we've completed during our CPP work programme have enabled an electricity network that's better prepared for the future. Having been largely built in the 1950s and 60s, the network pre-2018 certainly wouldn't have coped as Aotearoa faces more frequent and severe weather events and accelerates to a low-emissions future.

Finally, I'd like to extend my thanks to our customers and communities for their support during the past five years, and to all those who had a hand in delivering this investment programme.

Haere pai atu i runga i te mōhio ko koutou tonu, ngā kiritaki, te poutokomanawa o ā mātou mahi katoa.

Go well in the knowledge that we continue to put you, our customers, at the heart of all we do.

**John Loughlin**  
Chair



"While our five-year investment programme has come to an end, our customers can be secure in the knowledge that we will continue to actively invest in our network, applying the delivery capability built through the CPP to provide them reliable power to enable their future energy choices."

# Message from our CEO

## Kia ora koutou.

As we mark the end of our CPP, I wanted to take the opportunity to personally thank all those who enabled the successful completion of this ambitious five-year investment programme and share some brief thoughts on what they have delivered.

My role as Powerco CEO began in October 2021, during CPP Year Four. I've had the privilege of overseeing the final 18 months and witnessing the dedication and professionalism of our team and our partners to deliver for the communities we serve. Thank you for your mahi.

I'd especially like to acknowledge our customers and communities for their patience and understanding during this journey. Planned power outages are necessary so that crews can safely work, and we know these are disruptive. While we try to plan work in the least disruptive way possible, there were times when we didn't get it right. However, feedback from our customers has helped us to engage more effectively with community leaders and stakeholders as the programme developed. Your input has been invaluable in shaping our electricity network that will take your communities into the future.

Thank you too, to those Powerco employees, executives and Board members – past and present – who worked tirelessly from the time we started shaping our CPP application to the Commerce Commission, with the help of our customers and stakeholders, through to the planning and implementation stages. Please know your work on getting us to this point is appreciated.

And to our partners – including our electricity field service providers, vegetation management and other specialist contractors – we could not have done this without your technical expertise, focus on safety and dedication to our customers, working at times to tight timeframes and during various COVID-19 disruptions. We are very confident that our CPP application and programme of work was the right decision to lift the reliability and resilience of our network to meet our customers' needs and expectations.

In my view, the improvement in the assets is not the main benefit of the CPP programme for our customers and communities however. The most important strategic benefit delivered by the CPP programme, is the capability it has given us to meet the urgent need to support communities to mitigate and adapt to climate change.

In Aotearoa, thanks to our renewable electricity system, this means electricity increasing from ~28% of the energy mix, to ~65% by 2050 – a massive step up. It means electrifying major parts of our economy, and doing so affordably and ensuring the resulting system is resilient to changing climate patterns. Through the CPP programme, Powerco has grown an ecosystem of employees, advisors, and partners who have proven that, collectively, they can innovate, learn, and adapt to safely deliver nearly three-times the amount of work that was being undertaken prior to the CPP programme. Our workload will only increase from here. And this proven step up in delivery, innovation and muscle means I can say with confidence that Powerco is ready, willing and able to deliver an affordable, resilient low carbon future.

I am proud of the dedicated mahi of our teams and crews who work to deliver for our customers every day. You can be assured we will continue to be passionate about our purpose to connect communities by delivering infrastructure in a way that keeps you, our customers, at the heart of everything we do.

Ngā mihi nui

**James Kilty**  
CEO



“This proven step up in delivery, innovation and muscle means I can say with confidence that Powerco is ready, willing and able to deliver an affordable, resilient low carbon future.”

Ngā haumāuiui

## Highlights

Key achievements for the year

The final year of our CPP programme has seen the completion of several large-scale, multi-year projects, as well as the continued strengthening of our network's backbone – that's the power poles, lines and crossarms – that keep our communities connected.

Exciting new technology has been brought online and our processes and systems matured to ensure we'll continue to support your energy needs now and into the future.

Here are some of the highlights that were achieved during our CPP Year Five.



## Connecting South Waikato communities

Benefiting more than 11,500 customers, power began flowing through the new South Waikato National Grid Connection between Arapuni and Putāruru in March 2023.

Working with the local community was key to the project's success – our largest to date – with the South Waikato District Council, iwi and local landowners involved in the selection of the route, and the placement of poles.

To mark the completion of this \$43m connection, a celebration was held with the community at an event at Mangakaretū Marae, with CEO James Kilty planting a kōwhai to mark the occasion.

Construction of the line, in collaboration with Northpower, started at the end of 2021 and involved the installation of 76 new overhead structures, as well as cable sections at either end of the connection. Our Putāruru substation also underwent a major upgrade to enable the connection to terminate there. Enabling works to underground existing 11kV lines along the route on Arapuni Road were also required.

Along with providing capacity to power the growing number of homes and businesses in the region, the connection supports customers' changing use of electricity as they seek to reduce their carbon footprint – such as providing enough supply for the increasing use of EVs.

"Having an alternative line of supply providing extra capacity will be greeted with acclamation by our communities. As our district continues to grow, the new line will help to ensure that there are fewer outages, and the surety of supply will have a positive impact on the economy of our region. I am thrilled that this project has finally come to fruition."

**Jenny Shattock**  
Former South Waikato District Mayor

### Find out more

The \$14m upgraded Walton substation and new cable link is also providing enhanced security of supply to our South Waikato customers. The result of this work means we now have options to send electricity north or south – throughout the South Waikato – supplying customers, including a number of dairy factories, in the event of an outage.

Our South Waikato customers are already experiencing the benefits of a more secure power supply. In the past, maintaining Transpower's substations in the region usually meant two day-long outages for thousands of customers. Thanks to our recently completed projects in the region, electricity can be re-routed around our network to keep everyone's lights on.

### Find out more





Whanganui at dusk.

## Futureproofing Whanganui's supply

Completed in March 2023, a new high voltage switchroom at our Peat St substation in Whanganui has been built 1.8m off the ground to safeguard it against future flooding and, in turn, help protect the city's power supply.

Part of a \$20m investment in the city, the new switchroom is a vital component of Whanganui's interconnected electricity network that supplies power throughout the city. During 2022, almost 8km of new high voltage cabling was installed between the Roberts Ave and Peat St substations, to our Taupo Quay substation. This additional 33kV ring circuit means there are now alternatives to restore power to Whanganui customers in a quicker and safer way if there's a power cut. The ring circuit also supports the Taupo Quay substation which provides critical power supply to the CBD as well as the hospital.

We've worked with Ngā Tāngata Tiaki o Whanganui and Te Rūnanga o Tūpoho, as well as Archaeology North and Heritage New Zealand Pouhere Taonga, to make sure these projects don't negatively impact the awa (river) or any cultural and archaeological sites of importance. The Whanganui River has always been an important asset for Whanganui and its communities, and even more so now with the Te Awa Tupua Act recognising it as a legal entity.

[Find out more](#)

## Powering decarbonisation in the Bay

Mount Maunganui's Triton substation has been rebuilt and modernised to ensure on-going security and reliability of power for the growing western Bay of Plenty. Completed in March 2023, the upgraded electricity substation reduces the risk of power outages for around 4,000 customers.

The substation supplies the Port of Tauranga and surrounding industrial area as well as the urban centre of Mount Maunganui. The upgrade also means surrounding commercial businesses can expand their operations and increase electrification in line with their decarbonisation goals.

"Having a secure electricity supply is vital. Port of Tauranga is continuously investing in electricity infrastructure. We're catering for future growth, better efficiencies, and lower carbon emissions."

**Laurie Johnson**  
Port of Tauranga Mechanical and Electrical Services Manager

[Find out more](#)



## Final push in Manawatū and Rangitikei

An almost 3km stretch of power poles and lines along one of Palmerston North's main streets were removed in November 2022, marking the end of our \$22.6 million, five-year electricity investment programme in the city.

The overhead power line was constructed in September 2016 to temporarily secure the electricity supply to the city's CBD, following a failure of one of the underground cables supplying our Main St substation.

Since 2018, we've been working on a series of major electricity upgrade projects in Palmerston North to expand, renew and rebalance the city's assets to ensure customers continue to have secure electricity now and in the future. The final upgrade work took place between June and August 2022 when larger capacity underground electricity cables were installed between our Ferguson and Main Street substations.

### Find out more

In nearby Rangitikei, the final stage of the Ōhakea to Bulls electricity upgrade was carried in March 2023. The work involved installing a steel duct to hold an electricity cable along the side of the Rangitikei River Bridge and was carried out overnight to limit disruption over the State Highway 3 bridge.

As well as advertising the bridge traffic management via social and local news media, we worked with Waka Kotahi and local stakeholders so the wider community, particularly the trucking industry, were aware of potential delays on the bridge while work was taking place.

The bridge crossing completed a three-year project to connect the new Ōhakea substation on the southern side of the Rangitikei River Bridge and our Bulls substation on the northern side.

### Find out more

For information about what we delivered in the fifth year of our CPP visit [powerco.co.nz](http://powerco.co.nz)

## International asset management accreditation

We believe a leading infrastructure owner and asset manager must have a mature asset management system in place and this was recognised when we achieved ISO55001 certification in May 2022.

The International Organisation for Standardisation (ISO) sets internationally recognised standards for technology and manufacturing, with ISO55001 being the benchmark for asset management systems.

To achieve accreditation, we developed a comprehensive Business Capability Framework to show how our functions and teams work together as an integrated whole to manage our assets – from strategy and planning to our organisational structure and competencies, how we manage our data, how we deliver our projects and maintenance, through to how we communicate with our customers.

Being the first electricity distribution business (EDB) in New Zealand to gain ISO55001 certification, we're proud to have achieved this key deliverable. Certification against this leading international asset management standard verifies that our asset management, and our supporting systems, processes, and capabilities, represent best practice, and means you can be confident in the way we manage our vast electricity network.



Power pole and line removal along Palmerston North's Main Street.



Underground cables being installed in Palmerston North.

## Communities benefiting from renewed 'backbone'

Our CPP proposal was supported and shaped by feedback from our customers who told us that, while being naturally price conscious, they did not want a deteriorating and unreliable service. Without significant investment however, our communities were facing a less reliable, safe, and resilient electricity network and supply. That's because a large proportion of our network was built in the 1950s and 60s and its condition was inevitably declining, with increasing equipment failures leading to an increasing number and frequency of outages.

While some of the bigger projects in our cities and larger towns may have stolen the headlines, smaller communities throughout our network regions are also benefiting from increased investment.

During the past five years, the backbone of the electricity network in our communities – the likes of the power poles, conductors and crossarms – has been rebuilt, significantly improving the power supply to you, our customers. In the past year alone, our team has completed 76 overhead renewal projects worth about \$56m in communities throughout our footprint. This investment has meant fewer interruptions to our customers' power supply – allowing them to get back to work and their day without concerns about repeated power issues.

We use an [Overhead Renewal Planning Tool](#), developed during our CPP period, to prioritise which equipment needs to be replaced. The tool combines data such as material quality, environment, previous maintenance, current condition, and fault history to produce visualisations showing where network renewal is most needed. It also uses information to help predict the potential impact of asset failure and power outages, such as the number of customers that could be affected in the area.

## Improving Riverlea's reliability

One community to benefit from renewal investment during CCP Year Five is the central Taranaki rural community of Riverlea, near Kaponga. Ageing conductor, transformers and crossarms – many dating back to the 1950s and 60s – were leading to poor power quality, including frequent voltage fluctuations and momentary outages. Farmers were reporting these supply interruptions were damaging their equipment and livelihood. If there was a blip in the power supply during milking for example, the cups would annoyingly fall off the cows, which caused disruption to the animals and business operations.

We acted on the known reliability issues, organising a meeting in Kaponga to update customers on a timeline for improvements being made to their line, so they would receive a reliable power supply into the future.

Carried out in three stages between November 2022 and July 2023, in a budget of almost \$4.3 million, we replaced 563 crossarms, 42km of high voltage and low voltage conductor, and eight transformers – providing 231 rural customers between Riverlea and Kaponga a much-improved power supply.

*"We're over the moon and can't believe the massive difference it has made. We've all said to each other that this must be what reliable electricity is meant to feel like!"*

**Jono Ardern**  
Taranaki Federated Farmers Executive  
Member and Riverlea resident



## Keeping our customers at the core of everything we do

Whether it's engaging and communicating with our customers and community leaders or supporting events and organisations across the regions we operate, we keep you and your interests at the core of everything we do.



## Improved customer information

We're committed to continuously improving our customer experience. In February 2023, during Cyclone Gabrielle, we launched our [new and improved website outage map](#) to make it easier for you to see current planned and unplanned outages on our electricity network. The new map provides more information about power outages, including visibility of all outages (the previous map only showed outages affecting 10 or more customers) and the status of the job. It's more accurate too, using polygons to pinpoint the outage area affected and enabling you to drill down to affected streets and properties. The platform is also far more stable, enabling tens-of-thousands of people to view the map at once.

The improvements mean you now have up-to-date information about outages affecting you. In the case of unplanned outages, it also means you can be confident that we know about an outage and that we're working as quickly as we can to restore your power. We'll continue to add new features to the new map to improve this service further.

Through consultation events, surveys and talking to our stakeholders, we know you prefer that we keep you informed of work that affects you. In the past, all correspondence about planned outages came through our customer's energy retailer. For potentially disruptive projects, we have enhanced this process by notifying customers of upcoming work and associated outages through direct email, by briefing local leaders, and by informing community-based social media sites. You'll still hear from your energy retailer, but this ensures you're kept connected with the work we're doing and have a way of getting in touch with us to provide feedback.

## Building meaningful relationships

We're building meaningful relationships with iwi and hapū, community groups such as Federated Farmers and Civil Defence (National Emergency Management Agency), as well as MPs, local mayors, councillors and community boards in the areas we serve. Nurturing these grassroots relationships means we are more likely to know about potential issues and challenges facing our communities and can work together to find solutions.

Building community relationships through face-to-face meetings with iwi and community leaders has led to a new community energy resilience project in Manawatū and Wairarapa. In an emergency, local marae and halls become community hubs, which need to continue to be powered even if the rest of the region is without electricity. While these marae and community halls may have access to generators, a sticking point has been the availability of a manual transfer switch which safely connects the marae or halls' electrical circuits to the generator. To assist, we're partnering with Manawatū District Council and Wellington Region Emergency Management to identify marae in Manawatū and remote community halls in Wairarapa. We'll then fund an electrical assessment and installation of a manual transfer switch at each site.



Engaging with our Tauranga stakeholders.



Our customers – at the core of all we do.

## Strengthening our partnership with Māori

Engaging meaningfully with tangata whenua is an essential part of how we connect communities. That's why we're working to create sustainable partnerships with iwi, grounded on a mutual understanding of, and respect for, te ao Māori.

A new role of Community and Iwi Engagement Advisor was established in 2021 to create a Māori engagement framework – Te Raa – to enable us to forge closer relationships with tangata whenua. The role was refreshed earlier this year to Tangata Whenua Engagement Lead Te Poutāhū o Tanewhakapiripiri, and includes supporting our Projects, and Property and Consents teams in their engagements with iwi.

With Te Raa as our framework, we are also working to create opportunities for our leaders to actively engage with iwi, hapū and marae leaders to engage on projects that will help our communities move into the future.





WISE community partnership - helping reduce the effects of energy poverty.



Surfing for Farmers event – community partnership.

## Partnering with our communities

We're proud to be part of the communities we serve. That's why we support events and organisations across the regions where we operate.

In a new partnership in CPP Year Five, we're supporting the Waitara Initiatives Supporting Employment Trust (WISE), a Waitara-based charitable trust that delivers initiatives across the wider Taranaki community to reduce the effects of energy poverty. One of these initiatives sends Home Performance Advisors into the homes of Kiwis at risk of energy hardship. During their visit, they identify efficient heating and lighting solutions, ventilation tips and ways to reduce moisture build-up.

For homes that need further support, WISE has introduced a new programme from their Warmer Homes and Illness Prevention Installation Team (WHIPIT), which we support. WHIPIT follows up to correct issues identified by the Home Performance Advisors, completing an array of services inside and outside the home that improves overall home health and optimises energy use.

The programme was piloted in 2021, and since then has been delivered to 30 homes throughout Taranaki, of which we have so far supported five. Whānau who have benefited from this initiative tell us they've had warmer homes, less illness and reduced power bills.

### Find out more

"Reducing energy hardship around the motu is crucial as we lead into the winter months. With the cost-of-living crisis affecting whānau weekly budget, we need to do all we can to assist and educate them on energy usage."

**Paul Scouler**  
WISE Charitable Trust General Manager

As well as helping address energy hardship, we continued with our support of a raft of community partnerships. Whether it was helping restore native coastal biodiversity in New Plymouth with [Replant for Tomorrow](#), assisting [Predator Free Hauraki Coromandel Community Trust](#) to make their conservation goals a reality, or partnering with [Surfing for Farmers](#) or [Women in Engineering](#), we were there to help our communities thrive.

"We couldn't thank Powerco enough for their ongoing support of Surfing for Farmers in Pauanui. Without the help from our 'local legends sponsors' like Powerco it would not be possible to fund Surfing for Farmers. The team at Powerco went above and beyond by supplying a sausage sizzle and gift packs for our farmers which was greatly appreciated, not only by the farmers themselves but also the volunteers and surf instructor."

**Seth Roe**  
Pauanui Surfing for Farmers Coordinator

Part of our role in supporting the communities in which we operate, is nurturing the young minds of local tamariki and rangatahi. We do this by supporting learning initiatives that spark young people's interest in STEM (science, technology, engineering and mathematics), including [House of Science](#), which empowers teachers with resources to enable them to foster curiosity through science activities, and [Kiwibots](#), which uses robotics to engage children.

Encouraging environmental awareness and conservation among young people is also something we foster with our on-going partnership with the [Central Energy Trust Wildbase Recovery Centre](#) in Palmerston North. Of late, we teamed up with Wildbase to deliver our Replant for Tomorrow programme to help grow more native trees where they're needed – away from power lines. Children visiting the centre were given one of 2,500 seed packs, containing either kōwhai, cabbage tree, renga renga lily or manuka, to plant as part of the initiative.

“Powerco’s partnership with Central Energy Trust Wildbase Recovery fosters a range of educational opportunities for tamariki. Through this collaboration, Powerco provides valuable resources that enable hands-on involvement in conservation efforts, empowering tamariki to learn about conservation and establish a deep connection with nature. This partnership serves as a pathway to ignite passion, and develop the next generation of environmental kaitiaki, guardians.”

**Chris Smith**  
Wildbase Recovery Manager

Meanwhile, hundreds of children are benefiting from an initiative to extend the life of our computer technology. The latest learners to receive donated laptops were from [Te Aroha Primary School](#) and central Taranaki Māori immersion school, [Te Kura o Ngaruahinerangi](#).

Following a business-wide technology upgrade, we looked at ways to support our communities while also being sustainable. The result has been the distribution of around 300 laptops to lower decile schools throughout the communities on our network.

Our specialist team cleaned and prepared the laptops ready for the children to use – a sustainable way of extending the life of the technology and helping our communities’ young people.

“This donation means every child from year 7 to year 12 will have their own devices. It will make life much easier for the kaiako (teacher) and tamariki (children). This will give our tamariki the ability to engage with others, connect to other kura throughout the country for online learning, connect with kaiako delivering specialist topics, as well as connect with each other and much more.”

**Ngapera Moeahu**  
Te Kura o Ngaruahinerangi Tumuaki  
(Principal)



Distributing seed packs at Wildbase Recovery Centre.



Te Aroha Primary School students with their Powerco laptops.

# Delivering for the future

We're committed to decarbonising our network and enabling Aotearoa to achieve net-zero emissions by 2050.

As technology has advanced, we've evolved our thinking during the past five years to include alternative options to connect our communities that go beyond traditional power poles and overhead lines. The Coromandel Peninsula is a region where challenges posed by potential line routes and terrain, likely cost increases and technology improvements have changed our original scope.

Coromandel Peninsula customers told us they wanted a reliable electricity network, with minimal environmental impact, and at the lowest cost. In addition to engaging with the local community, we put the call out industry wide for registrations of interest for proposed solutions to provide additional supply during peak demand periods that meet the low cost, reliability, and environmental criteria.

Following that call, [we've partnered with solarZero](#), a home solar, battery storage and energy services company. solarZero's system is a virtual power plant, made up of a network of community based smart energy storage and solar generation systems on homes across the region.

Using this system, solarZero will provide 1MW of network support to Powerco to help maintain its electricity supply to customers in the north Coromandel during peak consumption times – primarily busy holiday period times – when the level of demand is greater than what our electricity network was originally designed to deliver. By partnering with solarZero we've found an innovative way to support New Zealand's move to a sustainable future while bringing a low-cost option to maintain network reliability to our Coromandel customers.

[Find out more](#)





## Large-scale distributed generation

Achieving net-zero in Aotearoa means investing in renewable energy. With an increasing number of large-scale distributed generation (DG), such as solar and wind farms, developments seeking to connect to our electricity network, we've released a [web-based map](#) that gives developers an indication of available high-voltage network hosting capacity in their chosen location.

## Low voltage trial

Throughout our electricity network footprint, we believe understanding the low voltage (LV) network will be key to facilitating decarbonisation. We've partnered with Future Grid on a LV network monitoring pilot after it was named a winner of Ara Ake's electricity distribution decarbonisation challenge in November 2022.

A lot of the innovation and capability of customers to generate, store and participate in the energy market all happens behind the meter, which is LV – something networks have traditionally had little visibility of. We see these types of trials benefiting this country's electricity industry and we're committed to sharing the findings.

[Find out more](#)

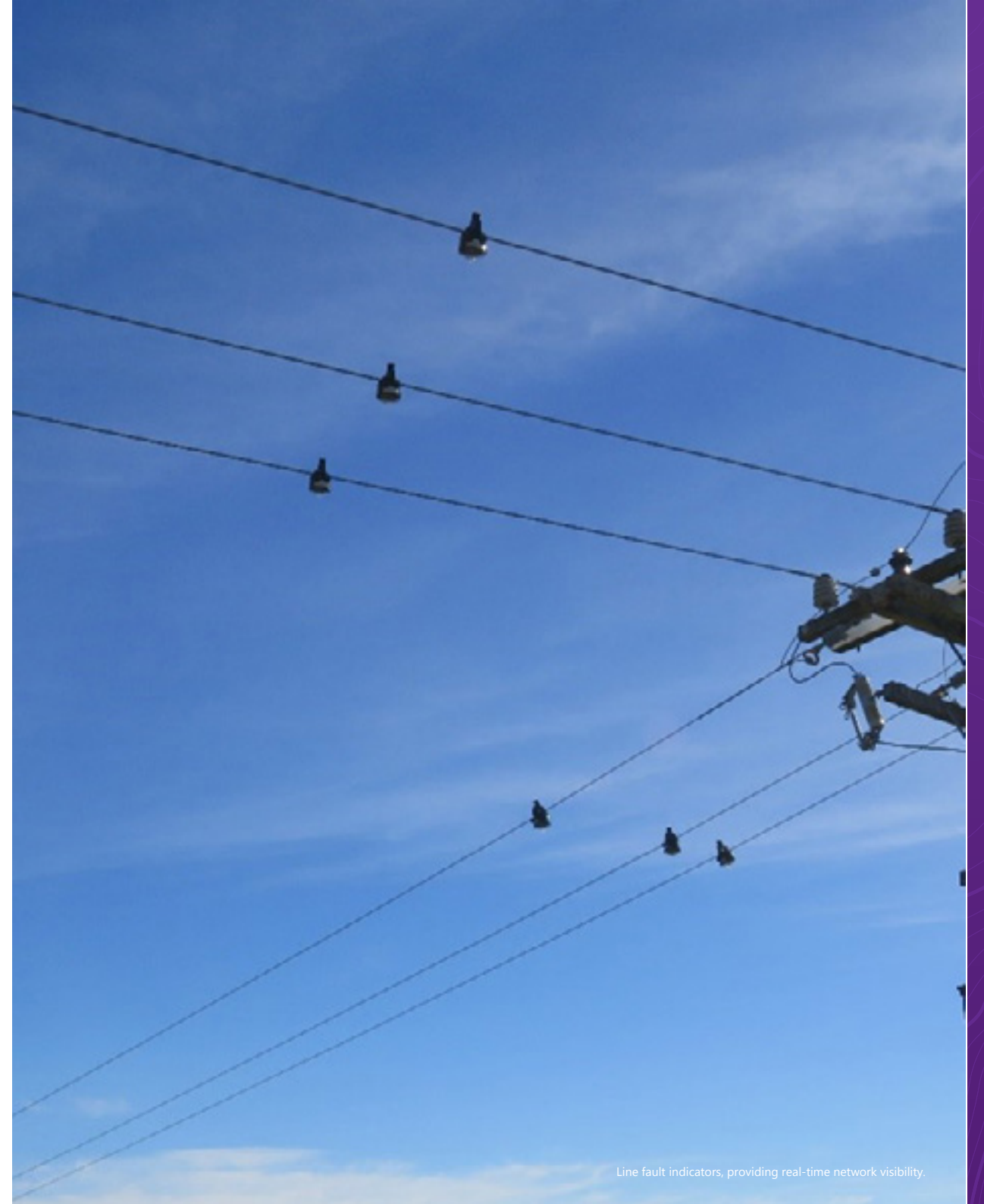
## Intelligent overhead line monitoring

Smart devices called remote Line Fault Indicators (LFIs) are being installed on overhead power lines throughout our electricity network, providing real time visibility designed to reduce the impact of unplanned outages on customers. The devices clip on to the lines between power poles and are another step towards fully digitalising and automating our network, with the aim of speeding up fault response.

Attached to the line near the crossarm, the device measures the line's current, voltage and temperature, on average, every 15 minutes. If there's a fault on a section of line, the device will flash a light indicating the direction of the fault. They then use the 4G communications network to report back to our Network Operations Centre (NOC), where we can see on screen where the fault is. Instead of sending a crew to patrol the entire line to find the fault, which could take several hours, we can quickly pinpoint the area of the feeder that is affected, isolate the fault, and get customers reconnected.

LFIs are a part of a wider rollout of automation technology, designed to reduce the impact of unplanned power outages on customers. It includes increasing the remote control of switching points on the network, to be able to get the power back on sooner.

[Find out more](#)



## Working better together

Connecting communities takes collaboration with our service providers who are out on our networks interacting with our customers every day. That's why, in mid-2022, we launched the Working Better Together programme to help develop strong, positive relationships with our service providers. We're piloting Working Better Together with Downer, our largest service provider. Once we've developed improved ways of working with the Downer team, we'll adapt the relationship model with other service providers we work with.

Our joint response to reconnecting customers during and following Cyclone Gabrielle in February 2023 showed improvements in the way we work, for the benefit of our communities. Ahead of Gabrielle making landfall, Powerco and Downer worked effectively together to ensure the field crews were available and stationed in the likely impact areas, especially Coromandel Peninsula, with access to the right equipment and with forms of generation on hand.

When toppled pines severed the power supply to [Coromandel's Wentworth Valley](#) during Gabrielle, poles and lines needed to be quickly moved to restore customers' supply. Downer crews were prepping the new site as our electricity design engineers were finalising drawings and plans. The new 11kV route was actioned in days – rather than the usual weeks – benefiting customers and the local community.

### Improving construction industry safety

In the aftermath of serious injuries of construction workers on other electricity networks, we launched a campaign in November 2022 to educate builders, scaffolders and roofers about the importance of following the Code of Practice for electricity safe distances (NZECP34).

We were concerned that construction workers were putting their lives and those of others at risk from working and building too close to power lines. We'd also learned of incidences where buildings had been built too close to power lines – where people could practically touch the lines when they opened the second story windows.

Specialist magazines and radio advertisements alerted the industry to the campaign, with digital advertising alone prompting 6,350 people to click through to our 'Follow the code' [building near power lines safety webpage](#).

In collaboration with beforeUdig, in November 2022 we helped launch a safe digging education campaign – to coincide with the inaugural Safe Digging Month – which resulted in various videos about the importance of knowing what's below to stay safe when digging near underground electricity cables.

[Find out more](#)



Ngā hua matua o te tau

## Our year at a glance

We get on with improving our network so you can get on with your day.

### Poles

4,901 poles replaced or reinforced, an increase of 10% on the year before.

^ 10%

### Overhead lines

144km of overhead lines replaced, a decrease of 31% on the year before.\*

∨ 31%

### Vegetation management

16,677 tree sites managed, 3% more than the year before.

^ 3%

### Renewals and growth investment

\$828m invested in network renewal and growth during the past five years.

\$828m

### Keeping the lights on

We kept the electricity on 99.94% of the time.

99.94%

Kōrero hōmiromiro

## Behind the numbers

Throughout the delivery of our CPP programme, we used metrics and targets to measure our progress. In this next section, you'll find the quantitative data for CPP Year Five.

### Investing in our network

A total of \$47.3 million was spent on major projects during CPP Year Five – \$17.3m more than we had forecast to spend in our final CPP year. The pandemic and resulting supply chain delays in earlier CPP years meant some major projects were pushed out to Year Five, allowing us time to concentrate on renewing our poles, lines, and other electricity equipment in earlier years.

As detailed earlier in the 'Highlights' section, the [South Waikato National Grid Connection](#) was completed, as were major projects in [Palmerston North](#) and [Inglewood](#). Work to install and connect the 33kV underground electricity cable between [Ōhakea and Bulls](#) substations was also completed, however the upgrade of the Bulls substation is now expected during FY24 after labour resourcing challenges led to a delay.

This work will then allow for the thermal upgrading of a section of the existing 33kV line between Marton and Bulls. In western Bay of Plenty, a section of cable for the Ōmokoroa project has been delayed by the Tauranga Northern Link project. We're awaiting access from Waka Kotahi, which is likely to take up to two years.

Major projects in the Coromandel and Hauraki areas have been impacted by factors such as rising costs, consenting and easement challenges, as well as geotechnical issues. While this has meant delays for some projects in those areas, technology advances have seen alternative solutions found, or we've re-evaluated our options to ensure we're still delivering cost-effective solutions for our customers, such as through our Coromandel [partnership with solarZero](#).

While major projects are budgeted at \$5m or more, our minor projects are those between \$1-5 million. We spent \$22.3m on minor projects during CPP Year Five – up on our CPP forecast of \$13.2m. Like with our major projects, a number of the smaller ones were delayed until the final year.

With the quantity of major and minor projects being completed during Year Five, we believe the network quality and reliability improvements that underpinned our CPP have been predominantly realised. In saying that, we remain committed to further improving the growth and network security of our communities in the years to come.

### Reliability of supply

Ensuring we provide a reliable power supply to you is important to us. We work hard, along with our service providers, to meet the regulatory targets set by the Commerce Commission for both unplanned and planned outages.

We use two metrics to measure how reliable your power supply is. SAIDI and SAIFI measure the average duration (SAIDI) and frequency (SAIFI) of outages a customer experiences during a year. We measure both planned and unplanned SAIDI and SAIFI. Planned outages are where we turn the power off so we can upgrade and conduct maintenance safely, while unplanned outages are when something unexpected happens on the network.

While we comfortably came within the targets for planned outages, it's disappointing to have exceeded our target for the duration and frequency of unplanned outages in our final CPP year.

Planned outages are exactly that – planned. We put a lot of planning into what improvement work should be carried out on our network and when, factoring in any efficiencies, such as combining tree trimming near lines at the same time as line maintenance and upgrades. This forethought to investing in the network enables us to control the duration and frequency of planned outages needed to safely carry out the work.

Planned	Limit	Actual
SAIDI	99.292	94.396
SAIFI	0.414	0.399

Unplanned	Limit	Actual
SAIDI	175.941	230.216
SAIFI	2.193	2.227

Increasing extreme weather events are impacting the duration and frequency of unplanned outages as our climate changes. We saw 28 storm days during the year, three of which were related to Cyclone Gabrielle. We're continuing to progress initiatives, such as better resilience for storm activity on our network and ensuring ahead of the event that we have fault crews and spare parts available on the spot to get power back on quicker. This is particularly important in areas such as the Coromandel Peninsula, where communities have proved difficult to access in events such as Cyclone Gabrielle in February because of impassable roads.

Despite our best efforts to proactively mitigate severe weather events, such as cyclical vegetation management across our 20,000km of overhead lines (see vegetation management section, [page 21](#)), the network continued to be damaged by flying tree branches and other vegetation. The on-going heavy rain that accompanied storms didn't help, with root-sodden trees toppling and then being blown into lines, slips bringing down power poles and, during Gabrielle, a substation flooding and cutting supply.

We're confident that despite challenges associated with storm events, investments in the electricity network that were completed during the past year will result in reliability improvements going forward.

[Find out more](#)

## Vegetation management

We use [Light Detection and Ranging \(LiDAR\) technology](#) on helicopters to regularly survey our vast network of 20,000km overhead lines to identify areas where we need to trim vegetation.

During CPP Year Five, we worked with our contractors to clear vegetation from 16,677 sites across our network – exceeding our plan to manage 8,921 tree sites by 87% (figure 1).

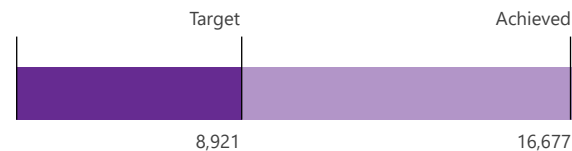
Continuing to use more efficient ways of clearing vegetation around our overhead lines and other electricity assets, including eco-mulching, heli-spraying and shelter trimming, which we introduced in CPP Year Four, helped us achieve these accelerated results.

Trees in lines are known to cause one-in-four power cuts on our network because, when overgrown, trees can interfere with power lines, cause outages and make it difficult for our crews to restore power.

Despite our best efforts, the increase in extreme weather events during the past year caused power cuts across our network, with debris and trees, roots of which were sodden by ongoing rain and flooding, being blown some distance into lines in high winds.

[Find out more](#)

**Tree sites managed** - Figure 1



## Renewing and replacing our assets

With much of our electricity network having been built in the 1950s and 60s, replacing equipment that had come to the end of its useful life was a big focus of our CPP programme. And with some 28,400km of network traversing some of this country's most remote terrain, renewing poles, lines and other equipment is an important part in ensuring the lights stay on for our customers.

During CPP Year Five, we replaced 4,901 poles and 144km of conductor (figure 2). When replacing assets, we ensure they are suited to their conditions. For instance, we use composite poles in coastal areas where corrosion is a factor, wooden poles in rural areas where they're best suited to withstand falling snow and trees, and pre-stressed concrete in urban and roadside areas to minimise harm in the event of a vehicle collision.

These upgrades require planned outages so work can be carried out safely, and we know that's disruptive for our customers. However, the new equipment helps ensure there are fewer unplanned outages for you going forward. Thank you to our customers for your patience and understanding while we carried out this essential renewal work.

**Assets replaced** - Figure 2

Poles	4,901
Conductor km	144
Transformers	189
Substation switchgear	6

## Maintaining our assets

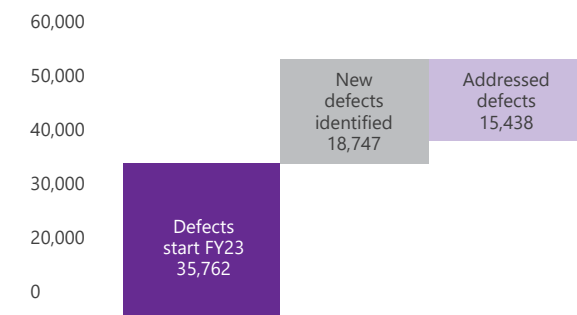
Every one of our electricity assets – whether it be a power pole, crossarm, transformer or line – is listed on a schedule for routine inspection and maintenance. While our aim is to complete at least 95% of the maintenance schedule each year, we completed 91.6% (107,568 inspections) of what we had planned to carry out during CPP Year Five.

Again, the extensive damage caused to the network by Cyclone Gabrielle and the consequent redeployment of crews to fix cyclone-related faults over routine maintenance, was behind the result. Work on assets we maintain yearly or less was cancelled in the wake of Gabrielle to free up crews to reconnect customers' power (see reliability of supply section, [page 20](#)). This equated to 5,732 cancelled inspections – 4.88% of our maintenance programme and all of which are rescheduled for completion this financial year. Because of Gabrielle, we deferred work on assets we maintain less frequently, a total of 651 assets. As of mid-2023, we're tracking well to complete this deferred work.

Whether detected through our routine asset inspections, our pole-top photography work programme or information from crews in the field, we're continuously monitoring our assets and working to either repair or replace any equipment that isn't up to standard. We're constantly on the look-out for defects and we have a rolling tally which is added to, and defects then prioritised and progressively remedied. Defects can come in a variety of forms, from cracked concrete poles, missing asset labels and crossarms starting to develop rot or have been damaged by lightning, to deteriorating underground cable joints and on-street electrical equipment starting to rust.

At the start of the year, we had 35,762 asset defects to address across our network. During the course of their work, our field crews reported another 18,747. We addressed 15,438 of those (figure 3). While the defect tally ebbs and flows, you can be assured we're continuing to look into every defect that we are notified of to keep the lights on for you.

**Number of defects** - Figure 3



# The numbers

Our quantitative data for the year.



# Financial summary

ADR reference 3.3a, 3.3b, 3.3c

	Actual FY23	Actual CPP regulatory period to date	Forecast FY23	Forecast CPP regulatory period to date	Variance FY23	Variance CPP regulatory period to date
<b>\$000</b>						
Total expenditure (Totex)	348,749	1,494,396	285,872	1,412,499	62,877	81,897
Capital expenditure (Capex)	237,425	1,011,126	187,740	926,247	49,685	84,879
Operational expenditure (Opex)	111,324	483,270	98,132	486,252	13,192	(2,982)

	Actual FY23	Actual CPP regulatory period to date	Forecast FY23	Forecast CPP regulatory period to date	Variance FY23	Variance CPP regulatory period to date
<b>\$000</b>						
<b>Network (Opex)</b>						
Preventative maintenance	10,910	48,378	12,828	63,691	(1,918)	(15,313)
Corrective maintenance	21,213	86,188	14,107	71,344	7,106	14,844
Reactive maintenance	9,568	38,036	8,243	39,762	1,325	(1,726)
Vegetation management	10,283	51,774	9,814	50,000	469	1,774
System operations and network support (SONS)	21,886	89,366	16,720	81,478	5,166	7,888
<b>Total</b>	<b>73,860</b>	<b>313,742</b>	<b>61,712</b>	<b>306,275</b>	<b>12,148</b>	<b>7,467</b>

	Actual FY23	Actual CPP regulatory period to date	Forecast FY23	Forecast CPP regulatory period to date	Variance FY23	Variance CPP regulatory period to date
<b>\$000</b>						
<b>Business support costs</b>						
Corporate	23,794	112,265	25,374	126,408	(1,580)	(14,143)
Facilities	2,087	8,096	2,232	10,771	(145)	(2,675)
Insurance and governance	3,139	13,352	2,507	11,988	632	1,364
Information communication technology (ICT) (Opex)	8,444	35,816	6,307	30,809	2,137	5,007
<b>Total</b>	<b>37,464</b>	<b>169,529</b>	<b>36,420</b>	<b>179,976</b>	<b>1,044</b>	<b>(10,447)</b>

<b>\$000</b>	<b>Actual FY23</b>	<b>Actual CPP regulatory period to date</b>	<b>Forecast FY23</b>	<b>Forecast CPP regulatory period to date</b>	<b>Variance FY23</b>	<b>Variance CPP regulatory period to date</b>
<b>Asset replacement and renewal</b>						
Overhead structures	49,067	263,223	40,056	184,118	9,011	79,105
Overhead conductors	7,086	43,616	17,511	62,149	(10,425)	(18,533)
Cables	17,348	64,802	6,727	36,626	10,621	28,176
Zone substations	7,923	43,042	14,756	77,185	(6,833)	(34,143)
Distribution transformers	9,845	38,294	10,239	49,496	(394)	(11,202)
Distribution switchgear	6,036	35,026	8,782	49,275	(2,746)	(14,249)
Secondary systems	2,851	15,471	2,573	19,351	278	(3,880)
<b>Total</b>	<b>100,156</b>	<b>503,474</b>	<b>100,644</b>	<b>478,200</b>	<b>(488)</b>	<b>25,274</b>

<b>\$000</b>	<b>Actual FY23</b>	<b>Actual CPP regulatory period to date</b>	<b>Forecast FY23</b>	<b>Forecast CPP regulatory period to date</b>	<b>Variance FY23</b>	<b>Variance CPP regulatory period to date</b>
<b>Growth and security</b>						
Major projects	47,308	127,415	30,057	148,629	17,251	(21,214)
Minor projects	22,274	53,915	13,206	54,090	9,068	(175)
Routine	12,738	84,896	15,973	78,061	(3,235)	6,835
Communications	3,610	23,784	1,955	17,275	1,655	6,509
Reliability	7,304	34,292	3,127	18,189	4,177	16,103
<b>Total growth and security</b>	<b>93,234</b>	<b>324,302</b>	<b>64,318</b>	<b>316,244</b>	<b>28,916</b>	<b>8,058</b>



	Actual FY23	Actual CPP regulatory period to date	Forecast FY23	Forecast CPP regulatory period to date	Variance FY23	Variance CPP regulatory period to date
<b>\$000</b>						
<b>Other network (Capex)</b>						
Consumer connection	28,258	91,970	12,001	59,181	16,257	32,789
Asset relocations	3,406	8,412	908	4,348	2,498	4,064
Network evolution	727	2,880	0	0	727	2,880
<b>Total other network capex</b>	<b>32,391</b>	<b>103,262</b>	<b>12,909</b>	<b>63,529</b>	<b>19,482</b>	<b>39,733</b>

	Actual FY23	Actual CPP regulatory period to date	Forecast FY23	Forecast CPP regulatory period to date	Variance FY23	Variance CPP regulatory period to date
<b>\$000</b>						
<b>Non network</b>						
ICT	6,863	54,727	7,521	57,087	(658)	(2,360)
Facilities	4,781	25,363	2,349	11,187	2,432	14,176
<b>Total non network</b>	<b>11,644</b>	<b>80,090</b>	<b>9,870</b>	<b>68,274</b>	<b>1,774</b>	<b>11,816</b>

# Major projects

ADR reference 3.3j

These are multi-year projects, so the annual figures don't reflect the status of the project. For more detail go to [www.powerco.co.nz](http://www.powerco.co.nz) and look for the project page.

Project and description	Progress	\$000	Actual	Actual	Forecast	Forecast	Variance	Variance
			FY23	CPP regulatory	FY23	CPP regulatory	FY23	CPP regulatory
<b>Papamoa</b> Install two 33kV cable circuits from Te Matai GXP to Papamoa east, construct a new zone substation at Papamoa east (Wairakei) and a new 33kV indoor switchboard at Te Matai GXP.	Cables, substation and switchboard installed and commissioned in FY19. Project complete.		0	534	0	259	0	275
<b>Palmerston North</b> Install new 33kV cables in the Palmerston North CBD to reinforce supply. Construct a new zone substation (Ferguson) and install new 33kV circuits between Linton GXP and the new substation. Construct a new 33kV indoor switchboard at Linton GXP.	Ferguson St zone substation was commissioned in mid 2019, and a second transformer added in FY21. 11kV feeder reconfigurations progressed during FY20. Linton to Ferguson cables and Linton switchgear works constructed during FY22. Ferguson-Main St-Keith St cabling, commissioned in FY23. Project complete.		1,036	22,635	11,325	17,269	(10,289)	5,366
<b>Putāruru</b> Construct new 110/33kV substation adjacent to the existing Putāruru zone substation. Construct a new 110kV circuit from Arapuni hydro to the new substation.	110/33kV substation construction complete and commissioned in FY23. Construction complete, 110kV circuit commissioned in FY23. Project complete.		29,200	37,019	0	25,176	29,200	11,843
<b>Whangamatā</b> Install a battery energy storage solution (BESS) and integrated standby diesel generator at Whangamatā zone substation.	BESS and diesel generator installation was completed in FY20, with commissioning in November 2019. Project complete.		1	12,080	365	8,060	(364)	4,020
<b>Ōmokoroa</b> Install a 33kV cable from Wairoa Rd to the Ōmokoroa substation, and another between Greerton switching station and Bethlehem substation. Construct a new 33kV indoor switchboard at the Ōmokoroa substation. Install a new capacitor bank at Aongatete.	One section of cabling completion has been held up by the Tauranga Northern Link (TNL) highway project. We are waiting for access from Waka Kotahi, likely 18-24 months. Ōmokoroa substation works have been delayed by the TNL highway, with the works currently on hold. Capacitor bank is now proceeding into detailed design, scheduled for completion in FY26.		3,884	8,156	0	13,552	3,884	(5,396)
<b>Kopu-Tairua</b> Reconductor the existing 66kV line between Kopu GXP and Tairua substation.	Updated cost estimates show this project is now significantly more expensive than originally forecast. Non-network agreement with solarZero signed to support peak demand management. Exploring further non-network agreements.		1	431	0	9120	1	(8,689)
<b>Kopu-Kauaeranga</b> Reconductor the existing 66kV line between Pārāwai and Kauaeranga Valley and thermally upgrade the line between Kopu GXP and Parawai. Construct a new 110kV overhead line from the Kopu GXP to the Kauaeranga Valley.	Reconductoring and thermal upgrade works were completed in FY20. New 110kV line route consented, awaiting resolution of Treaty settlement claim.		1	1,633	1,304	6,663	(1,303)	(5,030)

Project and description	Progress	Actual	Actual	Forecast	Forecast	Variance	Variance
		\$000	CPP regulatory	FY23	CPP regulatory	FY23	CPP regulatory
<b>Moturoa-New Plymouth GXP</b> Install dual 33kV cable circuits from Carrington Street GXP to Moturoa zone substation.	New 33kV cable circuits have been installed and were commissioned in August 2019. Project complete.	1	7,979	0	5,540	1	2,439
<b>Kerepehi-Paeroa</b> Install backup diesel generation at Kerepehi.	The preferred CPP option of a new 33kV line between Kerepehi and Paeroa is no longer viable. We are exploring alternative options, including non-network. Backup diesel generation remains an option, but prior to proceeding further network and non-network options will be explored. Project deferred to after the CPP period due to its lower priority.	0	93	0	6,763	0	(6,670)
<b>Whenuakite</b> Construct a new zone substation at Whenuakite, south of Whitianga and install new 66kV line deviation off the existing Tairua-Whitianga circuit.	This project has been deferred beyond the current planning period, following significant cost increases due to the poor geotechnical conditions of the overhead line pole foundations. We are now investigating potential non-network options to support network security in the Cooks Beach, Hahei and Hot Water Beach areas, such as from distributed generation or third party provided solutions.	407	2,060	2,697	5,102	(2,290)	(3,042)
<b>Matarangi</b> Construct a new zone substation at Matarangi and install a new 66kV circuit from Whitianga substation to the new substation.	The original project for a new 66kV zone substation has been deferred as the full 66kV line/cable route has yet to be secured. The network issues at Matarangi will now be resolved via backup generation, and the new Matarangi zone substation remains a long-term solution depending on demand growth in the area. Generation design, consenting and procurement has progressed in FY23, and completion is expected in FY25.	920	978	3,001	9,318	(2,081)	(8,340)
<b>Putāruru-Tirau</b> Install a new 33kV underground cable between Putāruru and Tirau substations.	33kV cable was commissioned in late FY22. Project complete.	39	7,361	0	7,459	39	(98)
<b>Kaimarama-Whitianga</b> Construct a new gas insulated 66kV switchboard (GIS) at Kaimarama.	Changes to the National Environment Standards (NES) in late 2020 have introduced strong protections for wetland areas, which were subsequently identified near our planned switching station site. Consenting challenges forced us to abandon our planned site, following advice from the Waikato Regional Council. The network needs are now primarily being addressed by generation and non-network solutions in the Coromandel area. We are also working with Lodestone Energy to develop a similar switching station nearby, enabling both solar farm connection and future potential network benefits.	22	903	2,626	7,077	(2,604)	(6,174)
<b>Kereone-Walton</b> Install a new 33kV cable link between the Kereone Tee and the Walton zone substation. Construct a new 33kV switchboard and a 5MVAR switched capacitor bank at Walton substation.	Detailed design completed in FY22, and substation and cable construction has been completed in FY23. Capacitor bank has been deferred until required, but its connection is accommodated in the substation design.	5,183	6,006	1,716	7,223	3,467	(1,217)
<b>Feilding-Sanson-Bulls</b> Construct a new 33kV subtransmission link between the Sanson and Bulls substations. Construct a new 33/11kV zone substation at the Ōhakea airbase. Install new 33kV switchgear at Sanson and Bulls substations. Thermally upgrade a section of the existing 33kV line between Marton and Bulls.	The new Ōhakea substation was commissioned in FY22. The project is complete except for the Bulls substation works and Marton-Bulls upgrade. Commissioning the substation work has been deferred at Bulls to FY24 due to challenges securing resources, but is underway. Marton-Bulls upgrade completion expected FY25.	3,763	11,143	4,023	7,142	(260)	4,001

Project and description	Progress	\$000	Actual	Actual	Forecast	Forecast	Variance	Variance
			FY23	CPP regulatory	FY23	CPP regulatory	FY23	CPP regulatory
<b>Pyes Pa</b> Construct a new 33/11kV zone substation at Pyes Pa, Tauriko.	The Pyes Pa substation was commissioned in May 2018.	0	1,129	0	2,995	0	(1,866)	
<b>Inglewood</b> Convert Inglewood substation to 11kV by upgrading the remaining 6.6kV/415V distribution transformers.	Final stage of transformer conversions completed in FY23. Project complete.	904	4,503	0	6,910	904	(2,407)	
<b>Coromandel generation</b> Install backup diesel generation at Coromandel township.	Backup generation at Coromandel has been brought forward, with concept design works completed in FY22. Generation design, consenting and procurement has progressed in FY23, and completion is expected in FY25. The solution improves security in Coromandel and also supports the deferral of the Kopu-Tairua reconductoring project.	1,620	1,897	0	0	1,620	1,897	
<b>Post CPP Major Projects</b> Early project works on Major Projects to be delivered following the completion of the CPP period.		326	326	0	0	326	326	

Supporting material: In addition to the documents mentioned in the narrative above, all projects are further discussed in Chapter 11 and Appendix 7 of the 2023 Asset Management Plan. Project overview documents describing the major projects as at the time of the CPP submission are available on the Commerce Commission's website.

Rawa whakahou

## Asset renewal

ADR reference 3.3d, 3.3e, 3.3f, 3.3i

km	Actual FY23	Forecast FY23	Variance FY23
<b>Conductor replacement by region</b>			
Western region	116	241	(125)
Eastern region	28	141	(113)
<b>Total</b>	<b>144</b>	<b>382</b>	<b>(238)</b>

Number

### Overhead structures

Concrete poles / steel structure	3,832	3,169	663
Wood poles	1,058	1,757	(699)
Other pole types	11	44	(33)
<b>Total</b>	<b>4,901</b>	<b>4,970</b>	<b>(69)</b>

Number

### Overhead structures by region

Western region	4,248	3,458	790
Eastern region	653	1,513	(860)
<b>Total</b>	<b>4,901</b>	<b>4,971</b>	<b>(70)</b>

Number

### Zone substation switchgear

#### Made up of:

Outdoor circuit breakers	1	5	(4)
Indoor switchboards	5	5	0

Number

### Transformer replacement

Distribution transformers (up to 22kV)	189	429	(240)
Power transformers (22kV up to 110kV)	2	3	(1)

Note: Conductor, pole and distribution transformer replacement quantities are based on an estimate of the number of assets replaced from design and as-built documentation but are not yet completed in our GIS system. Conservative assumptions have been used to ensure the replacement quantities are not overstated.

Rawa wāriu

## Unit rate

ADR reference 3.3g, 3.3h

\$	Actual FY23 Sub-transmission	Actual FY23 Distribution	Actual FY23 Low voltage
<b>Average unit value per renewed asset</b>			
Poles	13,382	8,496	7,961
Crossarm assemblies	2,505	2,045	1,986
Conductor (per km)	n/a	22,921	27,315

\$

### Average unit value per renewed asset

	Actual FY23
Power transformers	n/a
Distribution transformers	27,045
Zone substation switchgear	25,418

Notes:

There has been no sub-transmission conductor installed/commissioned in FY23.

There were two power transformers installed, but these projects have not been completed so they couldn't be capitalised to calculate their average unit rate. Also, the pole unit rate presented is exclusive of associated crossarm assemblies.

## Ngoikoretanga

# Defects

ADR reference 3.3k, 3.3p

Number	Actual FY23	Actual CPP Regulatory period to date
<b>Defect backlog</b>		
Material asset defects in backlog at start of the year	35,762	
New material defect identified	18,747	
Material defects remedied	15,438	92,366
Material asset defects in backlog at end of the year	39,071	

Number	Actual FY23	Actual CPP Regulatory period to date
<b>Red tag poles</b>		
Identified	87	335
Replaced	69	277

Note: Defects remedied include both defects closed through field work and defects cancelled through data cleansing programmes.

## Mātaaitanga

# Inspections

ADR reference 3.3l, 3.3m, 3.3n, 3.3o

Number	Actual FY23	Actual CPP Regulatory period to date
<b>Overhead lines - Western region</b>		
Number of poles	31,125	177,950
Estimated line length km	1,916	11,336

<b>Overhead lines - Eastern region</b>		
Number of poles	12,438	78,962
Estimated line length km	766	5,034

<b>Transformers - Western region</b>		
One pole mounted transformers / substations	2,308	15,116
Two pole mounted transformers / substations	144	458
<b>Total</b>	<b>2,452</b>	<b>15,574</b>

Ground mounted transformers	5,557	32,982
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<b>Transformers - Eastern region</b>		
One pole mounted transformers / substations	1,439	8,013
Two pole mounted transformers / substations	24	148
<b>Total</b>	<b>1,463</b>	<b>8,161</b>

Ground mounted transformers	8,227	46,788
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Ngā taipā whakaweto

## Vegetation management

ADR reference 3.3q

Number	Actual FY23	Actual CPP Regulatory period to date	Forecast FY23	Variance FY23
<b>Vegetation management</b>				
Tree sites trimmed	3,402			
Tree sites removed	11,618			
Tree sites sprayed	1,657			
<b>Total tree sites managed</b>	<b>16,677</b>	<b>69,147</b>	<b>8,921</b>	<b>7,756</b>
% of work cleared	187%	166%		

Tōpūtanga pūmanawa ipurangi

## Enterprise resource planning

ADR reference 3.3r

\$000	Actual FY23	Forecast FY23
<b>Enterprise resource planning</b>		
Expenditure	3,445	0

Aru kaimahi

## Staff

ADR reference 3.3s

Number	Actual FY23	Forecast FY23	Variance FY23
<b>Staff recruitment</b>			
Full-time equivalent staff recruited (FTEs)	56	1	55

\*Note: Additional FTEs recruited in FY23 were primarily in the following areas:

- Business Services
- Electricity

Pakaritanga o te pūnaha hiko

## Network performance

ADR reference 3.3t,3.3u,3.3v

Minutes	Actual FY23	Limit FY23
<b>SAIDI (Planned)</b>		
Western region	105.739	
Eastern region	81.966	
<b>Powerco SAIDI (Planned)</b>	<b>94.396</b>	<b>99.292</b>

### SAIFI (Planned)

Western region	0.443	
Eastern region	0.352	
<b>Powerco SAIFI (Planned)</b>	<b>0.399</b>	<b>0.414</b>

### SAIDI (Unplanned)

Western region	246.311	
Eastern region	212.583	
<b>Powerco SAIDI (Unplanned)</b>	<b>230.216</b>	<b>175.941</b>

### SAIFI (Unplanned)

Western region	2.504	
Eastern region	1.924	
<b>Powerco SAIFI (Unplanned)</b>	<b>2.227</b>	<b>2.193</b>

Minutes	Actual FY23
<b>Average outage duration</b>	
Planned 6.6kV to 22kV	235.236
Planned 22kV to 110kV	270.506
Unplanned 6.6kV to 22kV	114.712
Unplanned 22kV to 110kV	63.390

Note: Eastern and Western SAIDI/SAIFI figures presented are in respect to the number of ICPs in the Eastern and Western networks respectively and will not sum to the total Powerco network SAIDI/SAIFI.

Pakaritanga o ngā taupuni whakapaku hiko

## Feeder performance

ADR reference 3.3w (i) (ii) (iii) (iv)

### Interruption duration index for 10 worst feeders

F1

Feeder	Index	Location
Kiwitahi	2,657	Piako Sub
Origin 1	1,253	Waihapa Sub
Origin 2	1,253	Waihapa Sub
Mangatoki	1,050	Eltham Sub
Camp Rd	852	Waiouru Sub
Eltham Town North	526	Eltham Sub
Arapuni St	516	Putāruru Sub
Devon Rd	499	Bell Block Sub
McCabe Road	492	Mikkelsen Road Sub
Pahoia	483	Ōmokoroa Sub

### Number of feeders exceeding interruption duration targets

F1 42

F2

Feeder	Index	Location
Waterworks Rd	5,677	Kai Iwi Sub
Windfarm	1,405	Hau Nui Sub
Katere 7	953	Katere Sub
Ōhakea	796	Sanson Sub
Katere 10	668	Katere Sub
Ngāmotu Rd	666	Moturoa Sub
Te Aroha Borough	633	Mikkelsen Road Sub
Aokautere	520	Turitea Sub
Willoughby St	440	Paeroa Sub
Taihape Town South	402	Taihape Sub

F2 54

F3

Feeder	Index	Location
Tairua North	4,186	Tairua Sub
Pepe Rd	4,090	Tairua Sub
Pleasant Point	3,738	Tairua Sub
Pauanui	3,682	Tairua Sub
Kūaotunu	2,721	Whitianga Sub
Kapanga Road	2,088	Coromandel Sub
Opoutere	2,067	Whangamatā Sub
Owera Rd	1,963	Whitianga Sub
Totara	1,755	Thames Sub
Wyuna Bay	1,715	Coromandel Sub

F3 88



## F4

Feeder	Index	Location
Hikuai	4,988	Tairua Sub
Westmere Gladstone	4,345	Gladstone Sub
Colville	4,032	Coromandel Sub
Tirohia-Karangahake	3,954	Paeroa Sub
Horoeka	3,072	Pongaroa Sub
Strathmore	2,728	Douglas Sub
Kohete Rd	2,426	Motukawa Sub
Matakana Rd	2,417	Aongatete Sub
Totmans Rd	2,381	Lake Road Sub
Coroglen	2,114	Whitianga Sub

F4

93

## F5

Feeder	Index	Location
Coast Road	9,497	Pongaroa Sub
Castlepoint	5,528	Tinui Sub
Annedale	4,515	Tinui Sub
Mangapakeha	4,130	Awatoitoi Sub
Weraiti	3,465	Te Ore Ore Sub
Langdale	3,131	Tinui Sub
Tuturumuri	2,749	Hau Nui Sub
Waione	2,350	Pongaroa Sub
Rawhitiroa	1,885	Eltham Sub
Castlehill	1,105	Alfredton Sub

F5

10

Pakaritanga o ngā taupuni whakapaku hiko

## Feeder performance

ADR reference 3.3w (i) (ii) (iii) (iv)

### Interruption frequency index for 10 worst feeders

F1

Feeder	Index	Location
Kiwitahi	10	Piako Sub
Manaia	7	Manaia Sub
Dairyfact	7	Kairanga Sub
Mangatoki	6	Eltham Sub
Lorne St	5	Morrinsville Sub
Devon Rd	5	Bell Block Sub
Pahoia	5	Ōmokoroa Sub
McCabe Road	4	Mikkelsen Road Sub
Studholme St	4	Morrinsville Sub
Arapuni St	4	Putāruru Sub

### Number of feeders exceeding its interruption frequency targets

F1 43

F2

Feeder	Index	Location
Waterworks Rd	14	Kai Iwi Sub
Ōhakea	8	Sanson Sub
Aokautere	7	Turitea Sub
Port Rd	6	Whangamatā Sub
College	5	Peat St Sub
Taihape Town South	5	Taihape Sub
Armstrong St	4	Kelvin Grove Sub
Ind Estates	4	Kelvin Grove Sub
Taihape Town North	4	Taihape Sub
Heads Rd	4	Castlecliff Sub

F2 54

F3

Feeder	Index	Location
Kapanga Road	15	Coromandel Sub
Hetherington Rd	11	Whangamatā Sub
Wyuna Bay	10	Coromandel Sub
Tarata	10	Motukawa Sub
Opoutere	9	Whangamatā Sub
Achilles Ave	9	Whangamatā Sub
Huntermville 22kV	8	Rata Sub
Awapuni	8	Kairanga Sub
Ashhurst	8	Kelvin Grove Sub
Gilmour St	7	Waihi Sub

F3 116

## F4

Feeder	Index	Location
Waituna	15	Kimbolton Sub
Riverlea	15	Kaponga Sub
Kaihere	15	Kerepehi Sub
Horoeka	13	Pongaroa Sub
Coroglen	13	Whitianga Sub
Burnside	13	Tuhitarata Sub
Colville	13	Coromandel Sub
Pohangina	12	Kelvin Grove Sub
Kakariki	11	Sanson Sub
Oroua Downs	11	Sanson Sub

F4

96

## F5

Feeder	Index	Location
Castlepoint	16	Tīnui Sub
Coast Road	16	Pongaroa Sub
Mangapakeha	15	Awatoitoi Sub
Langdale	14	Tīnui Sub
Annedale	13	Tīnui Sub
Weraiti	11	Te Ore Ore Sub
Waione	10	Pongaroa Sub
Parapara	8	TP_Ohakune
Blairlogie	8	Awatoitoi Sub
Tuturumuri	7	Hau Nui Sub

F5

11

Note: Feeder duration and interruption index represent the average duration and number of interruptions a feeder experiences in a given year.

# ICP outages, distribution transformer performance

ADR reference 3.3w (v) (vi) (viii)

## Duration of outages experienced per distribution transformer for the 20 worst served distribution areas

F1 Transformer	Duration Minutes	Location
TP595:B	5,899	Valley, KIWITAHĪ
TC3030:B	5,769	Valley, KIWITAHĪ
TC3203:B	5,688	Valley, KIWITAHĪ
TC1791:B	5,666	Valley, KIWITAHĪ
TC283:B	5,666	Valley, KIWITAHĪ
TC284:B	5,666	Valley, KIWITAHĪ
TC5070:B	5,666	Valley, KIWITAHĪ
TC5172:B	5,666	Valley, KIWITAHĪ
TC5318:B	5,666	Valley, KIWITAHĪ
TC5367:B	5,666	Valley, KIWITAHĪ
TC5882:B	5,666	Valley, KIWITAHĪ
TC6048:B	5,666	Valley, KIWITAHĪ
TC930:B	5,666	Valley, KIWITAHĪ
TP1034:B	5,666	Valley, KIWITAHĪ
TP1559:B	5,666	Valley, KIWITAHĪ
TP1970:B	5,666	Valley, KIWITAHĪ
TP2989:B	5,666	Valley, KIWITAHĪ
TP3387:B	5,666	Valley, KIWITAHĪ
TC2069:B	5,335	Valley, KIWITAHĪ
TC2070:B	5,191	Valley, KIWITAHĪ

F2 Transformer	Duration Minutes	Location
X2290:W	21,890	Whanganui, Waterworks Rd
X2567:W	21,890	Whanganui, Waterworks Rd
X2945:W	21,890	Whanganui, Waterworks Rd
X1764:W	21,763	Whanganui, Waterworks Rd
X1765:W	21,763	Whanganui, Waterworks Rd
X2939:W	21,763	Whanganui, Waterworks Rd
X1754:W	19,850	Whanganui, Waterworks Rd
X1760:W	17,740	Whanganui, Waterworks Rd
X1761:W	17,740	Whanganui, Waterworks Rd
X1762:W	17,740	Whanganui, Waterworks Rd
X1763:W	17,740	Whanganui, Waterworks Rd
X2559:W	17,740	Whanganui, Waterworks Rd
X1758:W	14,253	Whanganui, Waterworks Rd
X1759:W	14,253	Whanganui, Waterworks Rd
X2840:W	14,253	Whanganui, Waterworks Rd
X4042:W	14,253	Whanganui, Waterworks Rd
X1757:W	14,253	Whanganui, Waterworks Rd
X2504:W	14,253	Whanganui, Waterworks Rd
X2955:W	14,253	Whanganui, Waterworks Rd
X1753:W	10,848	Whanganui, Waterworks Rd

F3 Transformer	Duration Minutes	Location
TF5-072:B	51,825	Tauranga, No 3 Road
TC5136:B	9,640	Valley, Totara
T3/290:P	9,216	Manawatū, Colyton
T3/525:P	9,216	Manawatū, Colyton
T408:M	9,171	Wairarapa, Cologne St
TC1031:B	9,144	Valley, Totara
T3168:M	9,117	Wairarapa, Cologne St
T409:M	9,117	Wairarapa, Cologne St
T2929:M	8,986	Wairarapa, Cologne St
T3375:M	8,898	Wairarapa, Cologne St
TC5072:B	8,751	Valley, Tairua North
TC1440:B	8,727	Valley, Totara
TC4073:B	8,727	Valley, Totara
TC4429:B	8,727	Valley, Totara
TC4594:B	8,727	Valley, Totara
TC6478:B	8,727	Valley, Totara
X2279:W	8,676	Whanganui, Cornfoot St
TC5854:B	8,580	Valley, Totara
X377:W	7,992	Whanganui, Hunterville 22kV
TC5417:B	7,956	Valley, Tairua North

F4 Transformer	Duration Minutes	Location
TD3-180:B	31,881	Tauranga, Waipuna
TC5684:B	29,873	Valley, Cambridge Rd Tirau
T9/345:P	22,033	Manawatū, Ihuraua
X2991:W	17,821	Whanganui, Waitotara
X642:W	17,215	Whanganui, Mataroa A
X4183:W	13,550	Whanganui, Makirikiri
X4150:W	13,536	Whanganui, Makirikiri
X4151:W	13,163	Whanganui, Makirikiri
T9/263:P	12,373	Manawatū, Tiraumea
T9/264:P	12,369	Manawatū, Tiraumea
T9/293:P	11,774	Manawatū, Tiraumea
TC740:B	11,416	Valley, Awaiti
X2923:W	10,008	Whanganui, Makirikiri
TC811:B	9,589	Valley, Puriri
TC741:B	9,303	Valley, Awaiti
X2513:T	9,052	Taranaki, Cloton Rd North
TC1721:B	9,044	Valley, Kaihere
T4457:M	9,006	Wairarapa, Westmere Gladstone
X2726:W	8,847	Whanganui, Makirikiri
X2934:W	8,847	Whanganui, Makirikiri

F5 Transformer	Duration Minutes	Location
T231:M	14,063	Wairarapa, Weraiti
T232:M	14,063	Wairarapa, Weraiti
T234:M	14,063	Wairarapa, Weraiti
T1320:M	13,810	Wairarapa, Weraiti
T1726:M	13,810	Wairarapa, Weraiti
T235:M	13,810	Wairarapa, Weraiti
T2365:M	13,810	Wairarapa, Weraiti
T236:M	13,810	Wairarapa, Weraiti
T237:M	13,810	Wairarapa, Weraiti
T2115:M	12,801	Wairarapa, Blairogie
T1401:M	11,582	Wairarapa, Castlepoint
T1691:M	11,582	Wairarapa, Castlepoint
T1759:M	11,582	Wairarapa, Castlepoint
T1:M	11,582	Wairarapa, Castlepoint
T2809:M	11,582	Wairarapa, Castlepoint
T3188:M	11,582	Wairarapa, Castlepoint
T3259:M	11,582	Wairarapa, Castlepoint
T3705:M	11,582	Wairarapa, Castlepoint
T3885:M	11,582	Wairarapa, Castlepoint
T4083:M	11,582	Wairarapa, Castlepoint

**Frequency of outages experienced per distribution transformer for the 20 worst served distribution areas**

F1 Transformer	Frequency Number	Location
TC4764:B	15	Valley, Kiwitahi
TC2041:B	14	Valley, Kiwitahi
TC279:B	14	Valley, Kiwitahi
TC5866:B	14	Valley, Kiwitahi
TC772:B	14	Valley, Kiwitahi
TC857:B	14	Valley, Kiwitahi
TP2190:B	14	Valley, Kiwitahi
TP2443:B	14	Valley, Kiwitahi
TP862:B	14	Valley, Kiwitahi
TC173:B	13	Valley, Kiwitahi
TC2116:B	13	Valley, Kiwitahi
TC278:B	13	Valley, Kiwitahi
TC3319:B	13	Valley, Kiwitahi
TC3614:B	13	Valley, Kiwitahi
TC711:B	13	Valley, Kiwitahi
TC721:B	13	Valley, Kiwitahi
TC942:B	13	Valley, Kiwitahi
TP2491:B	13	Valley, Kiwitahi
TP441:B	13	Valley, Kiwitahi
TC3077:B	12	Valley, Kiwitahi

F2 Transformer	Frequency Number	Location
X1753:W	40	Whanganui, Waterworks Rd
X393:W	40	Whanganui, Waterworks Rd
X394:W	40	Whanganui, Waterworks Rd
X4181:W	40	Whanganui, Waterworks Rd
X4184:W	40	Whanganui, Waterworks Rd
X1754:W	32	Whanganui, Waterworks Rd
X1764:W	32	Whanganui, Waterworks Rd
X1765:W	32	Whanganui, Waterworks Rd
X2290:W	32	Whanganui, Waterworks Rd
X2567:W	32	Whanganui, Waterworks Rd
X2939:W	32	Whanganui, Waterworks Rd
X2945:W	32	Whanganui, Waterworks Rd
X1760:W	31	Whanganui, Waterworks Rd
X1761:W	31	Whanganui, Waterworks Rd
X1762:W	31	Whanganui, Waterworks Rd
X1763:W	31	Whanganui, Waterworks Rd
X2559:W	31	Whanganui, Waterworks Rd
X1757:W	29	Whanganui, Waterworks Rd
X1758:W	29	Whanganui, Waterworks Rd
X1759:W	29	Whanganui, Waterworks Rd

F3 Transformer	Frequency Number	Location
T3168:M	28	Wairarapa, Cologne St
T408:M	28	Wairarapa, Cologne St
T409:M	28	Wairarapa, Cologne St
T2929:M	27	Wairarapa, Cologne St
T3375:M	27	Wairarapa, Cologne St
T2324:M	25	Wairarapa, Cologne St
T395:M	25	Wairarapa, Cologne St
T396:M	25	Wairarapa, Cologne St
T397:M	25	Wairarapa, Cologne St
T1472:M	24	Wairarapa, Cologne St
T2062:M	24	Wairarapa, Cologne St
T2656:M	24	Wairarapa, Cologne St
T2785:M	24	Wairarapa, Cologne St
T404:M	24	Wairarapa, Cologne St
T406:M	24	Wairarapa, Cologne St
T407:M	24	Wairarapa, Cologne St
T690:M	24	Wairarapa, Cologne St
TC1502:B	19	Valley, Kapanga Road
T1206:M	16	Wairarapa, Cologne St
T1422:M	16	Wairarapa, Cologne St

**Number of consumers with 5+ planned interruptions**

F1	0
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F2	18
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F3	159
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F4 Transformer	Frequency Number	Location
T4/29:P	33	Manawatū, Pohangina
T4/327:P	33	Manawatū, Pohangina
T4/432:P	33	Manawatū, Pohangina
T4/172:P	32	Manawatū, Pohangina
T4/185:P	32	Manawatū, Pohangina
T4/206:P	32	Manawatū, Pohangina
T4/286:P	32	Manawatū, Pohangina
T4/30:P	32	Manawatū, Pohangina
T4/344:P	32	Manawatū, Pohangina
T4/362:P	32	Manawatū, Pohangina
T4/372:P	32	Manawatū, Pohangina
T4/375:P	32	Manawatū, Pohangina
T4/400:P	32	Manawatū, Pohangina
T4/321:P	31	Manawatū, Pohangina
7109:P	29	Manawatū, Pohangina
T4/198:P	29	Manawatū, Pohangina
T4/201:P	29	Manawatū, Pohangina
T4/202:P	29	Manawatū, Pohangina
T4/266:P	29	Manawatū, Pohangina
T4/31:P	29	Manawatū, Pohangina
<b>F4</b>	<b>862</b>	

F5 Transformer	Frequency Number	Location
X626:W	30	Whanganui, Parapara
X1651:W	29	Whanganui, Parapara
X2252:W	29	Whanganui, Parapara
X2440:W	29	Whanganui, Parapara
X2925:W	29	Whanganui, Parapara
X624:W	29	Whanganui, Parapara
X616:W	28	Whanganui, Parapara
X1488:W	27	Whanganui, Parapara
X615:W	27	Whanganui, Parapara
X617:W	27	Whanganui, Parapara
X618:W	26	Whanganui, Parapara
X619:W	26	Whanganui, Parapara
X622:W	26	Whanganui, Parapara
X623:W	26	Whanganui, Parapara
X794:W	26	Whanganui, Parapara
T10:M	25	Wairarapa, Castlepoint
T12:M	25	Wairarapa, Castlepoint
T13:M	25	Wairarapa, Castlepoint
T14:M	25	Wairarapa, Castlepoint
T1671:M	25	Wairarapa, Castlepoint
<b>F5</b>	<b>118</b>	

Note: For those transformers with the same performance level, alphabetical ordering has been applied to determine their inclusion in the top 20.

Ngā kōamuamu

## Complaints

ADR reference 3.3x

	Actual <b>FY23</b>
% of complaints responded to in 2 days	99%
Number of complaints received	776
% of complaints resolved within 20 days	76%
% of complaints resolved within 40 days	94%
Number of complaints deadlocked and referred to Utilities Disputes Limited	8
% of complaints deadlocked and referred to Utilities Disputes Limited	1%

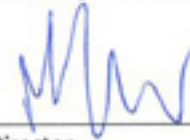
Note: In timing our response and resolution of complaints, day one is considered the first business day after the complaint is received.



# Certificate for Annual Delivery Report

For the period 1 April 2022 to 31 March 2023.

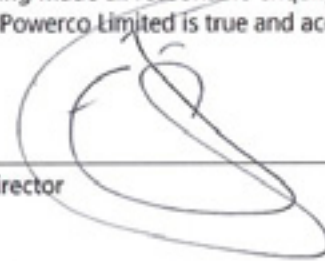
We, Paul Callow and John Loughlin,  
being directors of Powerco Limited certify that, having made all reasonable enquiry, to the best of our knowledge the attached Annual Delivery Report of Powerco Limited is true and accurate.



Director

22 / 08 / 2023

Date



Director

22 / 08 / 2023

Date

Note: Section 103(2) of the Commerce Act 1986 provides that no person shall attempt to deceive or knowingly mislead the Commission in relation to any matter before it. It is an offence to contravene section 103(2) and any person who does so is liable on summary conviction to a fine not exceeding \$100,000 in the case of an individual or \$300,000 in the case of a body corporate.

