

December 2022

ACROSS *the* LINES



Plenty to celebrate in 2022

We are again heading into the festive period after another busy and exciting year for PowerNet.

There has been plenty to celebrate in 2022, including receiving industry recognition for projects our PowerNet teams completed in the past couple of years.

In September, we received two Electricity Engineers' Association (EEA) awards. The Workplace Safety award focused on PowerNet's innovative Critical Control Framework (CCF). This powerful digital tool connects people directly with operational processes using a mobile phone or tablet. The tool, which we know as Risk Mentor, is a gamechanger. The second award, for Engineering Excellence, was for our first microgrid connection for The Power Company Ltd (TPCL) on the south coast at Rowallan.

EEA President Stephen Jay said the awards were a testament to PowerNet's "commitment to workplace health and safety and delivering engineering excellence".

Our innovative CCF improves the management of critical risks, meaning more people are likely to go home unharmed. It is also leading the way in which we are bringing safety, consistency, and clarity to managing and making all decisions relating to everyday critical safety points in all our on-the-job operational work.

We appreciate that our field teams have many safety obligations to adhere to when complying with electrical safety regulations, international standards, Safety Manual Electricity Industry rules, and best practice guidelines. Before starting a job, field teams use the CCF to ensure the required critical controls are in place to manage critical safety risks. As a result of the focus on critical risk controls alongside other safety initiatives, our incident rate has dropped dramatically.

So, thank you to the teams for using CCF and contributing to its development. Your input and feedback have helped create a very practical digital tool that meets our teams' needs and is improving how we manage our safety in the field.

The Rowallan microgrid project is another innovation we are proud of and demonstrates one of the paths forward for our industry. This coastal location was difficult to maintain a line to, and we determined a standalone microgrid could deliver a reliable electricity supply at a significantly lower cost.

We installed solar generation, battery storage and a backup generator to provide clean energy to the Rowallan Lodge and a household. The microgrid has been operational since mid-2020 and has proven to be a reliable supply system. This project is also providing insights into how and where similar systems could work well in the future from this.

When presenting the Engineers Excellence award, Mr Jay commended PowerNet's microgrid solution as an "excellent example of how electricity network operators can develop alternative ways of supplying power to customers".

PowerNet is exploring a range of uses for these technologies. They have proven effective and efficient in providing reliable electricity to customers in more remote parts of our networks. We could also use similar solutions to provide additional capacity and reliability in any part of the networks we manage. PowerNet is always keen to talk with customers about their specific energy requirements. Where it makes sense, we can implement alternative power supply solutions beyond traditional poles-and-wires.

This innovative thinking is essential as the decarbonisation of the Southern region gathers pace.



Jason Franklin.



Left: GM Health, Safety & Environment, Rangitikei receiving the EEA Workplace Safety award from EEA Board President Stephen Jay.

Right PowerNet's GM New Energy Development and Strategy, Kavi Singh and Senior Engineer Dyson Gentle receiving the EEA Engineering Excellence award from EEA Board President, Stephen Jay.



ACROSS^{the}LINES

The Government's Investment in Decarbonising Industry (GIDI) Fund is already producing great results for a cleaner, net-zero carbon future.

PowerNet is proud to be working to support the electrification of process heat for Matura Valley Milk and the Alliance Group. We look forward to helping other industrial businesses as they make the shift.

Biomass is widely considered an option for higher heat processors but can be challenging to manage and coordinate for smaller firms. These systems require consistent supply, transport and storage. Then there is the cost of equipment and staff to operate them.

Modern electric boilers and efficient high-temperature heat pump technologies are viable alternatives to biomass systems. They are compact, highly efficient, fast ramping, and have the ability to use cheaper, off-peak electricity overnight to heat and store water for use throughout the day. These smart, automated and clean systems can reduce energy costs and offer attractive payback periods.



Likewise, PowerNet is building the infrastructure to link Mercury NZ's new Kaiwera Downs wind farm to the TPCL network. Mercury is installing ten 4.3 MW Vestas wind turbines about 15 kilometres southwest of Gore. On October 31, our PowerNet team installed the first of the 176 poles along the overhead section of the 14.5 kilometre route. The 33kV line consists of overhead line and underground cable. The line will connect this new renewable generation to Transpower's Gore grid exit point. Mercury expects Kaiwera Downs to begin generation later in 2023.

PowerNet also continues to support Southern Generation, the joint venture between our shareholders — TPCL and Electricity Invercargill Ltd (EIL) — and Pioneer Energy Ltd. Last year's acquisition of three North Island hydro stations and the commissioning of the new Matiri hydro scheme near Murchison took its total renewable generation for the 2021-22 year to 218.2 GWh.

Photo above: The Gore PowerNet team installing the first 33kV pole at the Kaiwera Downs Wind Farm site.

Graphic right: The Southern Generation Limited Partnership portfolio.



The PowerNet-managed Lakeland Network Ltd (LNL) based in Central Otago will exceed 4,000 connections by Christmas. This is a phenomenal 20 per cent rise on last December's 3,331 connections on the LNL in Queenstown, Frankton, Wānaka and Cromwell. Overall, Lakeland has seen over a 1000% customer increase from 325 Frankton network connections in 2015.

This year our shareholders, TPCL and EIL re-signed PowerNet's network management agreements for a further 10 years. We are extremely grateful for their continued confidence in our operating model and the results from our dedicated teams.

The combined asset base PowerNet manages surpassed \$1 billion in value in 2021 which is a significant milestone. A lot of work went into updating these agreements to ensure we continue to meet the expectations of supplying safe, efficient and reliable power to the communities we serve.



An aerial view of Hanley's Farm, Frankton.



A student from James Hargest College Junior Campus attending a session of the St John's Whātuaia te Waiora Weaving Wellbeing Programme.



Tuatapere Community members attending a local St John's Mental Health First Aid training course.

Our communities are vital to us, and our sponsorship of St John for the past nine years is one of the ways we give back to them.

Over the past nine years, St John has received \$900,000 from PowerNet, supporting its work around the Southern region. This funding has helped St John to deliver resilience and wellbeing skills to 1,293 students across 15 Southland schools over the past two years. We hope this programme will be extended into the OtagoNet Joint Venture network next year.

Other St John initiatives our sponsorship has supported include the Mental Health First Aid Programme which has trained 359 people through 24 community courses since 2020, 1,428 Level 1 First Aid Training courses since 2014, and co-sponsorship of the ASB St John in Schools programme – a national scheme which is celebrating 1 million children trained in First Aid.

Since 2015, PowerNet has also donated 17 publicly accessible AEDs around the southern region and sponsored the St John Invercargill Training Hub which holds 18-20 courses each month.

In addition to that sponsorship, PowerNet has installed four EV chargers to power the two electric health shuttles St John is trialling in Southland. The data shows the most used chargers are in Invercargill and Winton. As of October 31, 2022, these two sites had delivered 2,909 kWh of electricity or about 15,000 km of travel. PowerNet estimates this has offset 873 kilogrammes of CO₂e.

Charging the health shuttles has cost an estimated \$873 since their introduction. By comparison, diesel vans would have used about 810 litres of fuel costing about \$1,600 at an average price of \$2 per litre. PowerNet monitors electric car uptake around our network regions to ensure we can support widespread charging and use. Several PowerNet staff use EVs and report substantial cost savings. They are also proud to use locally generated electricity rather than imported fuel for everyday trips.

None of PowerNet's achievements are possible without our dedicated and talented staff. We have welcomed new people to the PowerNet team in 2022 as we continue to grow.

To our former team-mates who left us over the past year, we thank you for your time with us and wish you the best for 2023, whether with other companies or in retirement.

The tragic loss of Balclutha line mechanic Dan Groen, who passed away from a personal health event suddenly in October, was a terrible blow for everyone at PowerNet this year. We miss him greatly and extend our deepest sympathy to his family and everyone who knew and worked alongside him.

ACROSS*the*LINES

This year Bob Taylor took on the role of chair of PowerNet's board. Bob joined our board in 2020, bringing more than 45 years of strategic, business and operational management experience in the electricity supply industry in the United Kingdom and New Zealand. I also thank our former chair, Don Nicolson, for his leadership over the previous three years.

There have been several retirements on the boards of PowerNet, TPCL, OtagoNet Joint Venture (OJV) and LNL over the year. We are grateful for the efforts and dedication of Don, and other long-serving directors Duncan Fea and Doug Fraser who retired from all the boards over the year. Their input and knowledge has helped PowerNet get to the position we are in today.

We welcome Karen Sherry, James Carmichael and Murray Wallace who have joined the TPCL board. They bring a wealth of governance experience and infrastructure and electricity industry expertise. We look forward to their contribution in 2023 and beyond.

Most importantly, I want to thank each and every person at PowerNet for their patience and understanding as we worked through the COVID-19 pandemic. Throughout this difficult and disruptive time, the PowerNet team took on the challenges of working from home, working in bubbles, and adapting to constantly evolving situations.

Thanks to the effort and contributions of our people, PowerNet continues to innovate and grow. We can expect another exciting year in 2023.

I hope everyone has a relaxing, happy, and safe holiday season with family and friends.

Jason Franklin
PowerNet Chief Executive



Chairman's Christmas Message to Staff



Bob Taylor.

Firstly, on behalf of the PowerNet Board, we thank the PowerNet team for their contribution to the achievements of PowerNet in 2022. A job well done by all.

We appreciate that it has been a challenging year with necessary changes occurring to respond to the uncertainty and impact of world, national and regional events. The great strength of any business is its ability to change and make the most out of the challenges it is presented. As a Board, we see the PowerNet team embrace change and look for the opportunities it presents. This strength gives us a solid foundation for the future.

During challenging times, it is always important to stay focused on our purpose and protect our business and people. The work on developing our asset management fleet plans, safety management systems and response to decarbonisation has progressed well during the year. As Jason mentioned, it was rewarding to see our team recognised by the EEA for achievements with both our safety management systems and engineering excellence.

To the future, we will have new management agreements in place from 1 April 2023 covering the delivery of asset management and field services to our network customers.

These new agreements build on the services delivered for many years and capture the benefits of our proven business model that delivers economy of scale to TPCL, EIL, OJV and LNL as asset owners.

The key objectives under the new agreements include optimising fleet management, delivery of capital and maintenance services, work programming/scheduling, implementation of rate-card-based pricing and proactive performance monitoring. We aim to increase operational capacity by optimising utilisation and productivity to deliver ongoing competitive service to our network customers.

The Board has undergone some changes during 2022. I want to acknowledge the valued contribution of Doug Fraser, Don Nicolson and Duncan Fea, who ended their service as PowerNet directors this year. We are fortunate to have Karen Sherry, James Carmichael, and Murray Wallace join TPCL Board and look forward to their contribution. To my fellow directors, thank you for your support and guidance since I stepped into the Chair role back in January.

While 2023 will continue to present changes, we look forward to working through these as a PowerNet team. We hope you all have a safe and enjoyable break and take time to catch up with family and friends. Thank you all for your efforts, the support of your colleagues and for being part of the PowerNet team.

Bob Taylor
PowerNet Chair