

October 2016

# ACROSS *the* LINES

## PowerNet Wins National Award



PowerNet has recently won a national award for the community partnership it has with St John in Southland and parts of Otago.

PowerNet's entry was judged the best of four finalists in the national Deloitte Energy Excellence Awards community initiative category at a black-tie event in Auckland on August 10.

PowerNet chief executive, Jason Franklin, says the entry, 'Saving Lives Together', focused on PowerNet's community sponsorship of St John first aid courses and its public safety awareness initiatives in Southland. The sponsorship's overarching goal is to have a first aid trained responder in every Southland home and to equip 30,000 Southland children with first aid skills.

"We're absolutely stoked and proud to take out this category in a national award. It's a real tribute to PowerNet's ongoing commitment and belief in this project and to the hard work and dedication of St John," Jason says.

"In its operational work, PowerNet interacts with Southlanders in all parts of the region every day. It's very rewarding to be able to give back to Southland communities by building resilience at a grassroots level through strengthening first aid capability and safety awareness."

The sponsorship partnership continues to go ahead in leaps and bounds.

In the 2015-16 year, it meant St John could deliver first aid training to 5,234 Southland school students and 78 schools. A further 284 adults were trained through community courses.

There is a strong rural focus to the sponsorship. It includes regular collaboration between PowerNet and St John in rural safety promotional activities, including a shared site at this year's Southern Field Days, and getting the safety awareness message out to rural communities.

## Maryann Macpherson Steps Down

Maryann Macpherson's time as both chair of PowerNet and as a director on the boards of both PowerNet and The Power Company Limited (TPCL) has been rewarding, she says.

"I have very much enjoyed working with the team at PowerNet. Jason, the senior leadership team, and other staff were a pleasure to work with. I particularly appreciated their support and hard work during what were some challenging times during my term as PowerNet chair," Maryann says.

Maryann's involvement began in April 2003 when she became a TPCL director. Later that year she became a PowerNet director, then deputy chair of PowerNet from 2009 until 2012, before taking on the role of PowerNet chair from 2012 until 2015. She was also chair and a member of PowerNet's Remuneration Committee (2009-2015) and still serves on PowerNet's Health, Safety and Environment Committee (2012/13-present) and the Audit and Risk Committee (2009-present), having filled the roles of both chair and committee member.

When the terms of her directorships for both PowerNet and TPCL came due she decided to retire from both roles.

As a board director and particularly as chair of PowerNet, Maryann has been involved in some significant projects and events. These include overseeing the change in ownership of OtagoNet Joint Venture and the project to construct PowerNet's new head office building, as well as the amalgamation of Power Services Limited.

Maryann says she has enjoyed the opportunities that working on the board provided to interact with staff.

"It's great to get out and about and meet with staff on site for field visits. As board members, we may seem distant to staff who work out in the field but I can assure you that we're aware of their efforts, especially during storms."



## Doing It Better

Creating different organisational structures and changes to resourcing levels are initiatives that aim to support business improvements for PowerNet, says chief executive, Jason Franklin.

During its 2015/16 business planning process, PowerNet's senior leadership team identified that changes were needed to enable the company to evolve and improve.

"It was identified that some parts of the organisation required either a different structure or different level of resource, or both, to be able to deliver business improvements," says Jason.

Three key areas for improvement were identified:

1. Operational leadership
2. Integration and implementation of Information Systems
3. Greater focus on improving workplace safety, both culture and performance

As a result, over the last six weeks, a number of actions have been taken.

"Focusing on our operational leadership led to the establishment of the chief operating officer role and subsequent changes," Jason says.

In another initiative, after a review and input from the Business Support team, the decision was made to divide the team into two, with a senior leader providing direction and support for both teams, including resourcing improvements.

The first team, Health, Safety, Environment & Quality (HSEQ) will be led by Justin Peterson, as general manager HSEQ.

"The establishment of the separate HSEQ team will allow a focus on driving improvement in this critical area, especially in the delivery of improved workplace safety by working closely with operational leadership and in other improvement initiatives," Jason says.

The second team, Information Technology and Support, will include the IT, infrastructure and communications functions. The team will be led by Tim Brown, as chief information officer. The risk and compliance function will move from the Business Support team to the Finance and Commercial team.

"The establishment of a separate IT and Support team will enable a focus on the delivery of improved IT solutions for our business, by integrating existing systems effectively and making it easier for us to use technology to improve the way we all work. All structural team changes happened in mid-September," Jason says.

## The Elbow Peak Repeater

In early August PowerNet purchased a former Woosh telecommunications facility to provide communication links amongst substations on The Power Company Limited network.

PowerNet's operations systems manager, Daniel Wijkstra, says the repeater tower, located north of Lumsden, is now part of the Oreti Valley 66kV ring project.

The 30-metre lattice tower will provide communications over microwave links, protecting sub transmission lines between substations and providing back-up paths for communications if needed. The repeater tower will link the Mossburn, Dipton, Lumsden and Centre Bush Substations.

"As well as line protection, the repeater tower will carry SCADA (supervisory control and data acquisition) traffic. It will also make it possible to access substation devices from PowerNet offices, potentially providing connectivity between substations and corporate servers, thus enabling us to access information such as documents, settings or drawings," he says.



*Elbow Peak Repeater*

## Two More Defibrillators Donated to Southland Communities

**Borland Lodge Adventure and Education Trust and Bill Richardson Transport World are the latest community recipients of automated external defibrillators (AED) donated by their electricity network owners.**

Heartstart FRx (AED) donations are part of the three-year sponsorship between PowerNet and St John. The sponsorship agreement includes the annual gift of AEDs to communities on behalf of Electricity Invercargill Limited and The Power Company Limited networks.

PowerNet's chief information officer, Tim Brown, says the partnership is entering its third year and during this time six Southern communities have benefited from the donations.

The two recently donated AEDs are housed in locations that are accessible to the public, as this can mean the difference between life and death. Along with the AED donations, two Level 1 training sessions for Borland Lodge and Bill Richardson Transport staff will be funded by PowerNet.



*L/R - Borland Lodge managers, Lynn and Pete Illingworth, Doug Fraser (PowerNet director) and Mike Johnston (PowerNet)*



*L/R - Sarah Brown PowerNet director), Robin Eustace (St John territory manager), Joc O'Donnell (Transport World executive director) and Tim Brown (PowerNet chief information officer)*



## Jason Experiences a Nightshift with St John



'Amazing' is how PowerNet's chief executive, Jason Franklin, describes his frontline observer experience with the Invercargill St John's Ambulance team in August.

During the planned observer evening, Jason spent a 12-hour nightshift working alongside two St John crews around the Southern region.

Jason alternated between the two crews, which both included two fully trained paramedics. Wearing an observer vest Jason helped with carrying gear such as stretchers, equipment and backpacks.

"It was a busy Friday night. We started at 7pm and the night went extremely quickly as we were constantly on call outs," Jason says.

The experience has given Jason a much better appreciation of the service St John provides to the community.

"The calibre of the St John team (both paid and volunteer) and the equipment being used are aspects that we (PowerNet) can learn from. The co-ordination with the Christchurch Communication Centre was extremely impressive, and the teams' use of technology was awesome. At PowerNet, we are moving to get more technology in the field and my experience with St John gives me confidence that we can make greater use of technology ourselves," he says.

Jason praised the St John team's professionalism with both clients and the Southland District Health Board's Emergency Department, saying it was very impressive.

"Most of the people we were called to assist were suffering from winter illness, and I thought the bedside manner used by St John staff was amazing. They put patients at ease and treated them with dignity. All were very grateful for the service provided by St John," Jason says.

"The team was extremely professional but that didn't stop us having a few laughs through the shift as well."

## Martial Arts Achiever

Congratulations to Carol Lowe, PowerNet's operations project manager, who recently achieved a world ranking in the rare Japanese martial arts practice called Naginata.

Naginata is the Japanese pole arm branch of Kendo. Participants use a 2metre staff with a blade, although for practice weapons a bamboo end is used.

Carol has recently been awarded kyu (student) grade 3 in Naginata, which is two grades below the highest kyu grade, grade 1. It took Carol six months to reach this ranking, when often it takes candidates around two years.

Carol is one of 10 students at the Invercargill Naginata Club, one of only five clubs in New Zealand that practice Naginata. Over the next few years she aims to complete her dan (instructor) grades.



Carol Lowe



## Cancer Society Daffodil Day Collection

Thanks to: Sharon Johnston, Sally Mcleod, Melissa Smith, Faye McLeod, Stella O'Connor, Steve Labes, Waric Cross, Shirley Whitaker and Blair Bernard for representing PowerNet and collecting at Windsor New World for this year's annual appeal in August.

## Sayonara Sean



Sean Burrows

James Hargest College (JHC) student, Sean Burrows, is finishing his Gateway placement with PowerNet in preparation for a six-month scholarship in Japan next year.

The 17-year-old has been awarded one of 15 Ministry of Education language immersion awards through AFS New Zealand. The scholarships are available annually to Year 11 or 12 students who want to study for a semester overseas.

Sean has been a Gateway student with PowerNet since February 2016, spending one day a week during school terms learning about different roles within the company. The Gateway programme allows secondary students to spend time learning in a workplace environment. "At the beginning of the year I was lucky enough to be accepted into the JHC Gateway programme. I was really interested in the electricity industry so Mr Richardson, the school's careers advisor, arranged for my placement to be at PowerNet," Sean says.

While working alongside our PowerNet teams, Sean has gained first-hand experience of the electricity industry, including learning about equipment, tools and procedures.

"Doing something different each week was enjoyable and there is such a good variety of work. I came into the industry knowing very little and have learnt such a lot during my time with PowerNet," Sean says.

Where to next for Sean?

For the remainder of this year Sean will complete NCEA Level 2 and start on Level 3. He's not sure yet when he will leave for Japan.

"At the end of 2017 I will look at my university options. This fantastic experience with PowerNet means I'm now sure my future lies in the electricity industry."

From everyone here at PowerNet, we wish you all the best Sean for your future.

## Smart Meter Update

The number of Smart meters installed on the Electricity Invercargill Limited and The Power Company Limited networks is continuing to grow. Over 11,000 meters are now installed across the networks – this represents nearly 20% of all metered connections in Southland and parts of West Otago.

PowerNet's Smart Meter deployment project manager, Paul McCullagh, says that approximately 58,000 meters will be installed once the project is completed, and all 110,000 meters replaced.

"At present, approximately 93 per cent of the newly installed Smart meters are being read remotely, giving customers actual meter readings every month from participating electricity retailers," Paul says.

While the project has focused on installing meters in urban centres to date, meters are now also being installed in rural areas.

The planned end date for the \$24 million installation project is March 2018.



Alex Herring

## Clydevale Substation Upgrade Completed



The PowerNet team working on the Clydevale Substation

The Clydevale region will benefit from increased power capacity following the upgrade of the Clydevale Substation in Manse Street, Clydevale.

“Due to changes in farming patterns including more dairying, the electricity load in the Clydevale region has increased significantly over the last few years. The capacity was insufficient to supply increased demand,” says project manager, Raji Senaratne.

“Surrounding areas will also benefit from increased capability in backup power supply if a fault occurs,” he says.

The substation’s 2.5MVA transformer has been replaced with a new ABB 5MVA transformer, doubling capacity, says Raji. The number of outgoing 11kV feeders has also been increased from three to four.

The new transformer proved its worth when in January this year, the old transformer caught fire causing a loss of power supply. The new transformer was already in the substation so it was quickly connected to restore power supply.

The project has saved around \$150,000 through the purchase of a 10-year-old control building that had been part of Westpower’s Pike River substation. The purchase included 11kV RPS switchgear in good condition, says Raji.

Almost all of the construction work has been completed by PowerNet staff, significantly reducing costs. Four senior staff members - Phil Ramage, Rudie Burgers, Russel Carr and Murray Dickie - managed most of the field crew. Hyland McQueen was employed as the electrical design consultant and Calibre as the civil design consultant.

The substation was commissioned in late September 2016.

### KEY FACTS

- Project Manager - Raji Senaratne
- Project cost \$1.74 million
- Increases capacity in the region

## Inter-Depot Indoor Cricket Competition

A new sporting code challenge was set this month when the Onslow Street and Winton depots held an indoor cricket challenge at Queens Park Cricket Pavilion in Invercargill.

PowerNet area supervisor, Murray Hamilton, says the score was tight throughout the game ending with a one-run victory to the Onslow team.

“Victory was decided on the last ball of the last over, so it couldn’t have been any closer,” he says.

Congratulations to the Onslow Street team. The Winton team is looking forward to the next indoor cricket challenge.

## PowerNet's Social Club News

PowerNet’s first Social Club Annual General Meeting was held in July at the Racecourse Road office with nine members in attendance. New office bearers were elected with Rose Snell appointed president, Helen Widdicombe appointed secretary and Paul McCullagh re-elected as Treasurer. Thanks to outgoing office bearers Helena Middlemiss (president) and Faye McLeod (secretary). The Club has 91 members but is always looking for more, if you are keen please contact either Rose (ext 8889) or Helen (ext 4836).

Congratulations to the Snell family who won PowerNet’s Social Club quiz night ahead of seven other teams. The event was held in July at the Eastern Suburbs Tavern in Invercargill.

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## Orange Umbrella Continues

After two years and two amalgamations, PowerNet recently completed its fifth Orange Umbrella safety culture assessment programme.

PowerNet's Health, Safety, Environment and Quality manager, Graeme Webby, says whilst the company held individual historical data from Power Services, Otago Power Services and PowerNet, it was time to revisit the safety culture assessment as a fully integrated company.

"The response and feedback from staff, senior leaders and directors was excellent in both the survey and workshop and provided some common themes for areas of improvement," Graeme says.

Graeme points out that while the themes that emerged in this year's assessment are similar to those of previous assessments, new issues were raised in some areas.

"We did five different surveys this time and they included a much larger group of participants from a wider geographic area, so while comparisons can be made for some groups, it's not possible to do that across all groups."

Although PowerNet has made good progress over recent years, the results identified that the company needs to do more work in some areas to improve workplace safety and culture.

The common themes are currently being finalised but the six areas targeted for improvement are:

- Communication
- Culture / Trust
- Right Tools and Equipment
- Fair and Just Culture and Processes
- Resourcing
- Work Planning

"Once senior leaders have reviewed the key findings we will identify how they can be progressed as improvement initiatives to ultimately make PowerNet a safer and better place to work," he says.

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## Waikiwi Substation Nears Completion

The redevelopment of the Waikiwi substation is largely complete, with the substation set to be commissioned in November.

The 18-month project involved removing the existing transformers (while maintaining one working transformer at all times), installing two new 33/11kV, 11.5/23MVA transformers and constructing a new architecturally designed transformer building.

The new building is fully enclosed to reduce ambient noise and is separate from the existing switchboard building which continues to house the 33kV and 11kV switchgear.

The second transformer was livened on 19 September, while the first was livened in April 2016.

The substation grounds have also undergone a make-over with new landscaping and concrete paving.

PowerNet project manager, Roger Scott, says the project had some challenges.

"The design and construction was a challenge as the existing site is compact. Installing the new building and equipment also had to be completed in stages to maintain an electricity supply from the substation and to minimise disruption for residents."

"The commissioning of the last transformer was two months ahead of schedule and PowerNet recognises the fantastic efforts of the contractors, sub-contractors and consultants involved."



*Transformer 2 enroute to Waikiwi Substation*



## Boosting Capacity at Danone

The need for increased electricity capacity at the Danone Nutricia milk powder manufacturing plant near Clydevale in South Otago required an upgrade of the plant's dedicated Greenfield substation.

The upgrade meant installing an additional 1000kVa transformer at the manufacturing plant to bring the total number of on-site transformers to three. At the substation it involved installing a 33kV Ring Main Unit (RMU) and replacing a 300kVa transformer with a 500kVa transformer.

Installation of the new 33kV RMU inside the substation required the construction of a basement foundation and a cable duct in concrete sections to carry the 33kV single core cables from the RMU to the substation boundary and then to the plant's three 1000kVa transformers.

PowerNet Power systems technician, Phil Ramage, says the changeover to live the new system meant shutting down the plant on a Sunday and required clock-work like coordination from PowerNet staff, Danone staff and contract electricians.

"We shut off the power to the plant at 7am. We were able to get the substation connected up and all cables livened without a hitch. It was a very productive 12-hour stint."

The new transformer, T5, was livened at around 9am as it was already connected to the RMU. To supply essential services, transformer T3 was then brought online as soon as cable testing was complete, and then T4.



*The weather proof housing for the indoor 33kV Ring Main Unit*

## Link Box Relocations Continue

PowerNet's Invercargill Technical Team continue working on relocating link boxes above ground with a target of replacing two each month.

PowerNet's technical distribution supervisor, Ray King, says in August link boxes 66 and 8 were combined in a new upright link box 8 on the north west corner of Dee and Leet streets. Link boxes 42 and 135 were also combined in a new upright link box 150 situated on the corner of Kelvin and Yarrow streets.

Replacement of link box 30 situated on Spey Street was also completed in September.

## Around the Networks and Depots

### Electricity Southland Network

There's a hive of building work going on in the Queenstown Lakes area. It's keeping staff busy as they put the work in to make sure that new subdivisions and buildings have safe, secure and reliable power connections and supply.

Over recent months, the team have been contributing their skills and expertise to three subdivision developments on the Electricity Southland network. In the new year and beyond, they'll also be installing cabling and equipment for a new high school, and a new hotel and apartment block.

The biggest chunk of work is the Shotover Country subdivision in Frankton. Cabling work has been completed on Stage 11 (49 sections) of the project and the cabling installation for Stage 12 (42 sections) is also close to completion. Work will soon commence on the reticulation for Stage 13 (47 sections). The subdivision has the capacity for up to 900 houses and when completed it will also include a childcare centre next to the existing Shotover Primary School and a shopping centre.

There's also new developments in the Remarkables Park zone. Construction of a new high school that will cater for 1200 students has already begun at a site adjacent to the Ramada Hotel and Remarkables Park Shopping Centre. The new Wakatipu High School is scheduled to open in 2018, replacing the current high school in central Queenstown.

PowerNet has also recently received connection applications to provide cable installations and equipment for a new hotel and apartment block located in Red Oaks Drive in the Remarkables Park zone. Construction is expected to begin in December and January next year.

In the Lakes Edge subdivision installation of cabling and equipment is nearing completion for all 42 sections. The subdivision is adjacent to Kawarau Village (Hilton Hotel).

And finally, cable installation work is continuing at the Bridesdale Farm subdivision where 139 sections are being developed.



## Onslow, Winton, Balclutha, Stewart Island and Lumsden Depots

**Onslow Depot** has a new 4WD bucket truck with a 7-metre reach from the truck deck. They'll be using this mainly for fault response, and for minor high voltage (HV) de-energised and low voltage (LV) work. The team has recently completed the Marine Parade maintenance job in Bluff and a general maintenance project in the McQuarrie Street and Longbush South area. It has also finished upgrading LV road crossings in Harvey and Stobo streets, and is continuing Smart meter relay installations in the Invercargill and Winton areas. Finally, congratulations to Gerard Anderson and Samantha Maurangi who have completed their block 2 training course and to Andy King for completing his first high voltage training course.

**Winton Depot** – The team is starting major maintenance work between Oreti and Drummond. It recently finished work to change two pole transformer structures to single pole ground-mounted transformers in Orepuki and Nightcaps. Work is progressing on safety fences on the Winton – Hillside 66 tower line. The team is continuing with Smart meter relay installations in the Invercargill and Winton areas. 5S training has been completed for new recruits.

**Balclutha Depot** – The team is carrying out maintenance work on low lines, red tagged poles and transformer fuse and earth upgrades. It has also finished new irrigation supply work and sections of line upgrades.

**Stewart Island** - Connection of the new Unit 5 generator has been load-tested and the new back-up cables livened to provide additional network security.

**Lumsden Depot** is busy working on general line maintenance in the Lumsden/Balfour area. They will soon be completing cable and line work for two new irrigation pumps in the region.

### Another Underground Substation Decommissioned

Decommissioning of PowerNet's latest underground substation has now been completed bringing the total number of Electricity Invercargill Limited (EIL) underground substations moved above ground to four over the last 18 months.

PowerNet's substation maintainer, Murray Cunningham, says substation 614 on upper Herbert Street (west of Carron Street) – the latest substation to be moved - was one of 15 substations built back in the 1960s.

The remaining 11 substations on the EIL network will be relocated over the next two to three years.

"The project to relocate substation 614 took just four weeks, and we off-loaded supply as much as possible to minimise customer outages," Murray says.

The new substation is positioned on the south side street frontage and houses Halo switchgear and a new 300kVA transformer.

"Part of the relocation project included installation of new 11kV and 400V feeder cables to transfer the existing load from the old substation to the new substation," he says.

## New 'Rope and Pulley' Operating Process A Success

Two PowerNet staff have developed an innovative remote operating process for technicians working with Reyrolle RO series ring main units (RMU's).

PowerNet's technical distribution supervisor, Ray King, says the 'rope and pulley' operating procedure was a team effort created by substation maintainer, Paul Barclay, and himself.

"We had been talking about the impact of switching restrictions and how we could improve on the process of RO switch operation (opening, closing and earthing) when we do equipment maintenance or attend network faults. We believed we could come up with a solution to switch the equipment from a safe distance," Ray says.

Work on Electricity Invercargill's 11kV network can involve opening and closing a number of RMU switches which with the present switching restrictions often causes outages for both commercial and domestic customers.

The rope and pulley process eliminates the need to de-energise extra switches; it also cuts down the time that maintenance or fault work takes. The simple process uses two handles – one to open and one to close operated by a rope and pulley arrangement.

"Our new 'rope and pulley' procedure reduces the number of customers who may be inconvenienced or affected by an outage when we're working on RMUs. It also reduces the time we take to fix faults or to complete maintenance work," he says.

"To date the new process has only been used on the Electricity Invercargill Limited network but we know it can be used on any of our managed networks which have RO switchgear installed," Ray says.



Ray King

# ACROSS*the*LINES

## Welcome To Our New Staff



Melissa Smith  
Administration Assistant  
Racecourse Road



Allan Beck  
Financial Controller  
Racecourse Road



Aaron McCallum  
Apprentice Substation  
Maintainer, Onslow Depot



Shaun Colley  
Substation Maintainer  
Onslow Depot



Godfrey Chinembiri  
Substation Maintainer  
Onslow Depot



Umer Siddique  
Protection Engineer  
Onslow Depot



Mark Frew  
Substation Maintainer  
Onslow Depot

### Welcome to our temporary staff member:

Rebecca Thomas-Squires who will be our relieving receptionist

### Farewell to:

Rob Tweedie, Mary Anne Smith, Mary-Anne Bricknell, Nebiyou Tsegaye, Quinton Wicks and Dick McGregor

### New Appointments:

Sachin Chand (Onslow Depot) from line mechanic to substation maintainer, David Steele (Ranfurlly) with his six month secondment as project manager, Stewart Cornhill (Racecourse Road) on his six month secondment as project manager business improvement

### Welcome back:

Jim Dawson as temporary company secretary

### A pat on the back to our volunteers:

Many of our staff give their time and energy to support their local communities. This shows great community spirit and commitment. PowerNet is proud of the contribution its staff make.

Ranfurlly Fire Brigade - Vaughan Dowling, David Keenan and Ange Eady (trainee) Milton Fire Brigade - Michael Eaton and Ryan Griffiths, Balclutha Fire Brigade - Mike Harris, Balclutha St John - Craig Greenall, Ranfurlly St John - David Steele and Milton Lions Club member, Helen Widdicombe

### Baby congratulations go to:

Rachael Watt on the birth of Aubree Faye Watt on 11 August weighing in at 9lb 9oz, Hector Diamond on the birth of Logan Diamond on 25 July, Alana McLeod-Young on the birth of Grace Helana McLeod-Young on 13 August weighing in at 7lb 15oz and Carl Rathbone on daughter Eleanor Ngaio on 31 July weighing in at 7lb 9oz

Good luck to the PowerNet team heading to the Connexis Annual Connection Competition in Christchurch on the 18-20 October. Shane Lawson (team leader and line mechanic – Onslow), Matt Brown (line mechanic - Winton), Taura Patterson – (line mechanic - Onslow), Sean Christensen (trainee line mechanic - Winton), Sharon Johnston (team manager - Onslow)