#### July 2013 Issue 172

# PowerNet ACROSS LINES

# Keeping up with the news

You could take the old adage 'knowledge is power' quite literally around here.

At PowerNet, we're committed to ensuring all our customers, suppliers and key stakeholders are well informed. With a focus on enhanced communication, we have now introduced regular newsletters across each of the networks we manage – Electricity Invercargill, The Power Company, OtagoNet Joint Venture and Electricity Southland.

Brimming with stories covering all aspects of the respective businesses, the newsletters reach customers throughout Southland and Otago, including the Central Otago region.



#### New building announcement

The Power Company (TPC) Board has signed off on a new state-of-the art self-contained building to future-proof PowerNet's business.

TPC will own the new building, with PowerNet committing to a long term lease.

"Since PowerNet was created nearly 20 years ago, the business has focused on future-proofing for our customers. We have upgraded our networks around Southland and Otago, and as the next part of our future planning we are bringing our main office into the 21st century," PowerNet chief executive Jason Franklin says.

"The proposed design allows us to have all our offices and network system control on the same site, but also offers other benefits such as energy efficiency and better working environment for our staff."

The new building, which will be constructed on TPC's existing Racecourse Road site, has a seismic low damage design rating and in the event of a major disaster will have fully self-contained

power and water supplies.

"We have had a collection of buildings on site for some time now," Jason says. "Our old workshop and crane building, built in 1948, need to be demolished too. The new building sets us up for the future so we can stay at the forefront of network management."

"The demolition of the old buildings, new build, site remediation and fitout will cost about \$5 million," he says.

"It is a very good investment for a building that will last us for many years. We expect building to start in the second half of this year and completion is targeted for April 2014."



Richard Smith from Southern Quantity Surveyors and PowerNet's GM Corporate Service Manager Tim Brown

## ACROSS ELINES

### South Gore

The million-dollar upgrade of the South Gore Substation became a useful training exercise for one of our contractors.

"The old switchboard was due for replacement," network investment manager Tod Trotman says. "We took the opportunity to upgrade to a modern 11kV switchboard, with modern protection and control systems."

Decom Electrical was contracted to do the 11kV indoor switchgear design, construction and installation, while Otago Power Services Limited completed the required changes to the overhead network.

Tod said the million-dollar project was a useful exercise for OPSL staff as they were able to complete training on high voltage phasing checks during the course of the refurbishment.

"It was a pleasure dealing with both Decom and OPSL and the two companies worked well together on this project," Tod says.

#### Maximo goes live

The new Maximo asset management software implementation went live on 13 May after what product champion Barrie Duffin says was a "huge commitment and effort" by the project team.

Maximo allows us to efficiently track and manage asset and location data throughout their lifecycles across all four networks.

"The versatility of Maximo is the big thing. It will allow us to provide accurate information and reporting on our assets," he says.

The sheer volume of data made the project massive.

"We have about 240,000 assets, and each of those would have three or four attributes," says Barrie. "It was a considerable amount of work in getting the data to the point where it could be transferred."

He says there are some components of the Maximo system still being worked on and made functional, but with the majority of staff training completed and teething problems ironed out, the system is working well.

"Our whole team deserves a big pat on the back for this. They've had a massive commitment over the last 18 months to seeing this through."



Steven Wallace, Tony Corkill, Daniel Wijkstra, Mark Zwies, Barrie Duffin with trainer Gaye Aberhart from Certus

#### Storm tests network

"The June snow storm that hit the lower South Island and the electricity networks was a real test – for both our assets and for some customers," PowerNet chief executive Jason Franklin says.

"The bulk of the electricity networks stood up fine to the conditions but naturally there were some weather related outages. We would like to thank our patient customers affected by any outages and our contracted work teams at Power Services and Otago Power Services for their excellent responses to the difficult situation."

There has been a lot of investment across the networks to ensure outages are kept to a minimum. Weather-related events such as this storm can create all sorts of havoc, and the storm showed how important it is for landowners to take simple steps to help us keep the power on.

"One of the major messages we have been passing to customers through our regular newsletters is that ensuring vegetation is trimmed up to four metres away from overhead lines means that in high winds and snow conditions we don't have trees contacting lines and creating problems," Jason says.

"Letting our 24/7 System Control team know when a tree or pole has come down is also important and we thank all those people who let us know about these hazards."

"We understand that these weather events can be disruptive and difficult for our customers when they occur, therefore our aim is always to ensure safe and prompt restoration of supply. We were very pleased with the restoration achieved throughout this event and it's a credit to all staff who worked through such a tough storm."



Power Serivces fixing lines on the network

### Waipiata upgrade

Nearly \$1 million has been spent to improve reliability and security of supply to Waipiata and surrounding regions with the installation of a new 2.5MVA transformer and switchgear.

OtagoNet design engineer Lloyd Williamson says the existing 1.5MVA transformer had reached the end of its useful life.

"The new transformer gives us the extra capacity for future load growth," he says. "We also took the opportunity to put the switchgear indoors in a new building. The 11kV switchgear had previously been outdoors."

The Waipiata Substation covers the local area, Kyeburn, Kokonga and other parts of the region.

"The upgrade also allows us to move some of the load from lines for Ranfurly, Patearoa and Hyde if we need to," he says.

The upgrade was finished in April 2013.





Before and after photos of Waipiata Substation

#### **Electricity Invercargill Directors' Tour**



Roger Paterson (PowerNet's chief engineer left) at Leven Street Susbstation with Directors Phil Mulvey, Neil Boniface, Tom Campbell, Darren Ludlow, Jason Franklin (PowerNet's CEO) and Ross Smith The Electricity Invercargill Limited (EIL) Directors gave our key infrastructure a big thumbs up on their tour before the April board meeting.

"The EIL directors visited all four EIL zone substations," says PowerNet chief executive Jason Franklin. "They hadn't been on a visit to the substations for a couple of years. Their consistent comments were that they felt the assets and substations were looking in very good condition."

Jason says these comments are a great credit to the staff responsible for these vital assets.

"For me, I was really pleased to see that there has been a real focus on addressing the issues identified in the Safety Management System (SMS) reviews done for all zone substations. The new Doon Street transformer and the tidy-up of that substation was evident to directors, and new earthing and safety signage was at all four substations. It was great to see such immediate progress from the SMS reviews and it was noticed by the directors."

Jason said the tours for directors were important.

"We can make decisions sitting around the board table, but this gives the directors an improved understanding of the key investment decisions they make for the EIL network."

#### A tank on the move

A massive nitric acid tank made for a spectacular sight in late April as it was shifted from Crown Sheetmetal in Invercargill to its new home in Bluff.

The newly constructed tank took six hours to make the journey via road to its new home at Stolthaven Terminals at Bluff wharf.

Southland Machine Hire moved the tank from Invercargill to Bluff on a Mack Superliner truck and trailer. Over-height and over-dimension permits were required for each road or street that the load travelled on. Arrangements were made with PowerNet to drop lines in some sections of the Electricity Invercargill Limited and The Power Company networks. This allowed the large load to pass safety through and resulted in only short power interruptions to some customers.

"The 23.8 ton tank was constructed by Crown Sheetmetal and took one month to make," project engineer of Crown Sheetmetal Nigel Lee said.

"Stolthaven has a global network of terminals that provides high quality storage and distribution services worldwide. In partnership with their customer they have committed to providing additional infrastructure to their Bluff Terminal that supports the rapid growth of the dairy industry in the South Island," Stolthaven general manager NZ, Michael Frost said.



The nitric acid tank passing under TPC electricity lines at Awarua

## ACROSS ELINES

### **Customer Consultation**

The Power Company (TPC) hosted a function for commercial customers at Winton on 30 May. TPC Chair Alan Harper said the function worked well, with customers providing good feedback on what they valued from their electricity network service and also their suggestions for improvements.

PowerNet chief executive Jason Franklin said "We have held similar functions with customers in other electricity networks we manage. The more relaxed surroundings seem to work and we get plenty of comments and suggestions. It is important for us to work with business and industry to

ensure we have a very good understanding of their requirements in order for us to ensure we plan and manage the network accordingly."

During the evening Alan Harper presented, on behalf of TPC, a CPR and Defibrillator manikin to the Winton Community.

Winton Volunteer Fire Brigade chief officer, Brian Sommerville, said that the manikin was a valuable donation to the Winton community and that the full bodied adult 'Resucci Anne' would allow on-going CPR and defibrillator training for their volunteers.

"Having the manikin will now mean that we can have regular, realistic training which will not only benefit our members but ultimately the whole community, which could mean the difference between life or death when we are called upon," Mr Sommerville said.



Alan Harper (TPC Chair) with Brian Sommerville and Steve Milne (Winton Fire Brigade) and Jason Franklin (CEO PowerNet)

#### New servers and storage devices installed at PowerNet

Three new servers and two storage devices were installed at PowerNet late in March to allow more capacity for our computer system.

PowerNet's ICT support assistant Scott Murch said the purchase and installation of the servers and storage devices was through Focus Technology Group, with support from Westcon.

"The planning process for our new equipment took three months and then just two days on site to install. For risk management, two servers and a storage device were installed at the main office with the backup set installed at System Control," Scott said.

With PowerNet's growth and data storage requirements it was obvious the Company needed to upgrade from the existing servers and storage devices.

"The capacity of our old storage devices was only 4TB (Terabytes) and our new storage devices are 12TB so there is a lot more for us to work with now," he said.

Installation went well with staff unaffected.

Since installation the ICT team has noticed an improved performance. Database queries that once took up to 50 seconds to run are now only taking eight seconds.

### A testing time at Monowai

It was almost a bridge too far for the upgrade of the Monowai Substation.

The Monowai area is supplied by only one circuit from the Monowai Substation. The sole circuit splits into two circuits just outside the substation, with one supplying the Blackmount area and the other circuit the Borland Lodge area.

To improve the reliability of this supply TPC installed a new IMVA 66/IIkV transformer.

"This proved to be a logistical challenge as the suspension bridge crossing the Waiau River has restrictions for loads crossing the bridge," PowerNet network investment manager Tod Trotman says. "The bridge limits are a maximum of 7000kg for each axle with a total of 28,500kg maximum mass. With the transformer weighing just over 16,000kgs, a truck had to be selected with the required number of axles and the truck could not exceed 12,500kg."

To reduce weight the oil was drained from the transformer and transported separately.

This reduced the total weight considerably but it still exceeded the restrictions on the bridge.

An application to the Southland District Council and approval to take 33,000kgs over the bridge allowed the delivery of the transformer to site.

The logistical challenge didn't end there, though.

"Smith Cranes were to off-load the transformer. An application to Southland District Council for the crane to go across the bridge was granted but the crane driver had to manage the axle weight before crossing the bridge by pushing his boom out to shift some of the weight from the rear axles to the front axles," Tod says.

Those transport challenges made the actual installation seem easy by comparison. The new supply to the Monowai, Borland Lodge and Blackmount areas changed over to the new transformer in early April.



Contractors lifting the new 66/11kV transformer on-site

#### Katie Lahman's Outward Bound experience

Our GIS Technician Katie Lahman has returned from an eight day Outward Bound experience that she will never forget.

Each year PowerNet offers an employee a scholarship to attend Outward Bound and for Katie the Discovery course gave her a chance to challenge her limits and conquer her fears.

"The course was no holiday, from the moment I set foot at Anakiwa in Marlborough Sounds, it was all go," Katie said.

Activities included an eight hour tramp, bushwalking through native bush with only a compass and map, sailing and sleeping overnight on a cutter, a two day/night solo experience, a 12km run and also plenty of time spent in the classroom working together as a group.

"My two night solo was a chance for me to sit down and go over all the classroom lessons, consolidate what I had learnt and set my goals for moving forward. I slept under a fly and was restricted to a 20 pace circle with only a view of the Marlborough Sounds and a night-time possum for company." she said.

For Katie the highlights were facing her biggest fear of heights and completing the ropes course. "The feeling of being pushed to my boundaries and knowing that I could achieve the challenge I faced was incredible," she said. "There was absolutely nothing I didn't enjoy about my time at Outward Bound, everything was great fun and I would recommend attending this course to anyone. The skills I have learnt from attending will stay with me forever."



Katie on the high-ropes course

#### Trustees' and TPC Directors' visit to Kennington Substation

Southland Power Trust Trustees and TPC Directors got a first hand look at one of their newest network assets when the upgraded Kennington Substation was commissioned in March.

"The Trustees and Directors are the ones approving asset investment decisions and we like them to see the results of the investments made in the network," PowerNet chief executive Jason Franklin says.

"The Kennington Substation is one example of how we are improving and upgrading our network assets to ensure future capacity and reliability of supply for our customers."

The Trustees and Directors were given a tour of the new substation and equipment by staff who were able to explain the importance of the upgrade.

The Southland Power Trust holds all the shares in TPC on behalf of customers connected to the Company's network and distributes the benefits to these customers.



L/R Jason Franklin, Mark Zwies, Graham Sycamore, Roger Paterson, Jim Hargest and Wade Devine



L/R Maryann Macpherson, Duncan Fea, Doug Fraser, Mark Zwies and Roger Paterson

## ACROSS <u>Elines</u>

### Kelso upgrade

Upgrading the ageing Kelso Substation will ensure that Tapanui, Kelso and outlying areas of Waikaka will have a reliable supply of electricity for years to come.

The outdoor circuit breakers were to be replaced as part of TPC's asset management planning. While this work was being planned it became clear that old wooden cross arms around the structure were past their use by date, so the structure was stripped down and all cross arms replaced.

The replacement and refurbishment not only brings down the average age of the network assets, but also ensures customer supply is secure and built to last.

#### New staff



Rob Tweedie

#### Rob Tweedie - Commercial Analyst

Rob grew up in South Africa close to the Kruger National Park. After leaving school, Rob joined the Air Force for two years as part of his national service training before moving into an auditing firm in Durban. Upon his return from a short OE to the UK, Rob gained employment at a horticultural and grounds maintenance contracting company as their financial accountant. A change of company ownership saw Rob and his family relocating to Johannesburg where he was appointed the financial and administration manager for three national businesses.

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In 2007 Rob was offered a position with the Southern Institute of Technology as the management accountant. The Tweedie family once again relocated, this time to New Zealand. Not long after the move Rob was appointed Southern Institute of Technology's administration manager.

Married to Marené, a qualified chef, the couple have 2 sons and a daughter. The boys Mitch and Darren enjoy playing hockey and softball, Alison is just 2 years old.

Over the past few years, Rob has kept himself busy completing a Postgraduate Diploma in Business Enterprise and gained a horticultural qualification.

Rob enjoys life in New Zealand and spends many hours fishing and biking with his family.



Victoria Ward

#### Victoria Ward - Office Assistant

Originally from Christchurch, Victoria has recently made the move south with partner Jake who commenced employment with Fonterra as the Lower South Island/Central Otago Sales Territory Manager. Both Victoria and Jake have never lived in another city or away from their families, so leaving home and moving south was an exciting new challenge for the young couple.

Born and bred in Christchurch, Victoria worked at Lincoln New World as office supervisor, responsible for Accounts Payable and Receivable, GST and PAYE calculation and payments.

Her family in Christchurch consists of mum Tina and dad David and two younger brothers, Alex 20, and Taylor 15.

Prior to working at PowerNet, Victoria briefly worked at Windsor New World as their administration assistant.

Outside of work Victoria has a passion for sport and it has always been a big part of her life. Between the ages of 9 and 18 she play softball for Christchurch's Sydenham Kereru Club in the position of short stop. She was also in the Canterbury Development softball squad for two years. In the winter Victoria played netball for Christchurch Suburbs University Senior B team in the reserve grade, playing both goal defence and goal attack positions.

When not playing softball or netball, Victoria enjoys touch rugby, rugby union, outdoor soccer and futsal (a variation of indoor soccer).

#### A fond farewell

To Danielle Walker who left PowerNet late April to the slightly warmer climate of Western Australia. We wish her luck in her new adventure.

#### Going the extra mile

Women do it for beauty reasons, Ma'a Nonu does it to one of his eyebrows, but PowerNet's photographer James Jubb does it for charity – and it hurts.

James, who has taken photos for us for over five years at the Tour of Southland and for our corporate publications, had his rather hairy chest waxed to raise money for the Westpac Rescue Helicopter Appeal.

"I volunteered to do the Chopper Appeal ride (from Queenstown to Invercargill) and I thought, let's try and amp this fundraising effort up and get some people who might not have donated to give some money," James says.

"I said that if I could raise a certain amount I would have my chest waxed."

After leaving Queenstown at 6.10am on a chilly May morning and arriving in Invercargill 223km later, James went home, had a shower, and returned to have his pride and joy removed in front of the 34 other riders and supporters.

"It was not a pleasant experience. It was quite painful, actually."

It was worth it though, as his stunt pulled in about \$1,200 of the \$12,000 total raised by the cyclists.

James Jubb – Envious Photography

"Everyone knows someone who has had something to do with the chopper. I often think about how important it could be to one of my clients and so it was nice to give something back to the appeal," he says.

The Envious Photography owner is a proud PowerNet contractor, and is always out training in his PowerNet cycling gear.

"I wear it because PowerNet has supported me over the years, so it's showing a bit of brand loyalty out on the bike."

As for the poor old chest hair, it has now grown back, but there's no short-term plans to have it removed again in a hurry.

"It was OK to do it once. Not sure I'd want to do it again," James laughs.

#### Administration professionals' acknowledged

PowerNet showed its appreciation for our in-house administrative professionals by sending the entire group of ladies to this year's Administrative Professionals' Day luncheon held at Invercargill's Ascot Park Hotel.

Administrative Professionals' Day is observed internationally for recognition of the hard work by all administration professional's in the workplace. "The purpose of the day is for the bosses to take out their administrative professional's for the afternoon as a way of saying thank you for their contribution," Joanne O'Connor, training manager of Otago Southland Employers' Association says.

"The 324 tickets to this year's event were all sold out three weeks prior to the public launch date. The luncheon continues to grow in popularity and has become a major event in Southland's business calendar with guests attending from 65 local organisations," she says.

Planning of this event has come together easily with an experienced committee of volunteers from local organisations such as South Port Ltd, Ascot Park Hotel, Invercargill Licensing Trust and New Zealand Institute of Management.

The event has been held annually for over 24 years and is organised by the Otago Southland Employers' Association on behalf of the Association of Administrative Professionals' New Zealand. Guest speaker Kevin Biggar gave an entertaining presentation about his experiences of competing in the 2003 Trans-Atlantic rowing race with fellow New Zealander Jamie Fitzgerald, winning the 5,000km race in 40 days and 5 hours. Four years later the duo joined forces again and became the first New Zealanders to reach the South Pole unsupported, a journey of 1,200km in 52 days.

Kevin's delivery of his message about setting outrageous goals, overcoming extreme obstacles, and persevering through adversity to achieve success was inspirational. His presentation was well received by all who attended.



The PowerNet ladies with Kevin Biggar

# ACROSS ELINES

#### Pole scanning training

Ever wondered how we make sure those wooden poles on the networks are still fit to do the job?

"We use Portascan for our pole scanning now," PowerNet distribution engineer Peter Eastwood says. "It's a bit like an X-ray for the wooden poles."

Staff completed a refresher training course in April with Anthony Lima of PortaCat Industries, Peter says the units have been in use on the networks for about 18 months.

"It makes it a lot easier and faster. The handheld units work like a PDA and the scan can be sent direct to computer and put in the system."

There are thousands of wooden poles across the networks we manage, with OtagoNet having most overall.

"Obviously the wooden ones that are unsafe are replaced with concrete ones. We are testing any older than seven years as we've found rot can sometimes set in about a foot below the ground," Peter says.

The Portascan equipment can also be used on steel poles, although there are not as many on the network.

Two crews are working on scanning poles across the networks PowerNet manages at the moment. With replacement poles costing over \$1200, the Portascan is an important and more reliable asset management tool.



Anthony Lima (PortaCat Industries) Liam Mahon, Simon Windle (both from Otago Power Services) and Peter Eastwood (PowerNet)

#### **Exercise Te Ripahapa**

Business continuity planning for PowerNet was put to the test on 29 May with the appointed Incident Management Team (IMT) facing its first training exercise as part of the South Island wide exercise 'Te Ripahapa'.

Civil Defence Emergency Management Groups across the South Island participated in the 12 hour exercise which was based on a 'real life' magnitude 8 earthquake along the Alpine Fault.

Locally the training exercise involved about 70 people from local authorities and PowerNet. There was also a high level of involvement from the region's emergency services.

PowerNet has engaged Warren Cummins from BCM International to co-ordinate the Business Continuity programme for PowerNet, which included facilitation of PowerNet's role in this exercise.

Business continuity management co-ordinator Tania Cribb says this was the first training exercise for the team who were only introduced to their role on the IMT the week prior.

"This was the first scenario the group faced; we all needed to remember it's not a case off 'if' a natural disaster happens, it's a case of 'when' it happens. For the IMT to participate in training exercises like Te Ripahapa will prepare them for any emergency that may arise in the future."

"For PowerNet, as network managers we need to ensure that we have sufficient planning to minimise disruption of electricity supply to our consumers," she says.

The basic scenario of the exercise was a valuable lesson, not only giving the IMT tips on what to expect when the 'Big One' hits, but how to work as a team under pressure.



The newly formed Incident Management Team during the Te Ripahapa exercise

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#### **Corporate Services takes a network tour**

The corporate services team experienced their first network tour in March, visiting the White Hill Wind Farm and Emergency Management Southland.

After a team building exercise and a shared lunch the nine team members headed to the wind farm for a guided tour. Peter Mason from Meridian Energy showed the team around the White Hill Substation and inside a tower supporting one of the 29 wind turbines.

The power generated at the wind farm connects to a The Power Company 66kV network circuit which runs between Winton and Te Anau.

For some of the team it was their first visit to both a substation and a wind farm. On the way back to Invercargill the team stopped off for a tour of Emergency Management Southland's headquarters to look at their on-site facilities. This included a briefing on the functions of the centre and how PowerNet may be required to interact with the centre in an emergency situation.



The team at the White Hill Wind Farm