

Who is Electricity Invercargill Limited?

Thanks to our visionary undergrounding programme, Electricity Invercargill Limited (EIL) remains one of the most reliable networks in New Zealand. Most of our 657km electricity network is underground, reducing outages and ensuring our consumers stay connected.

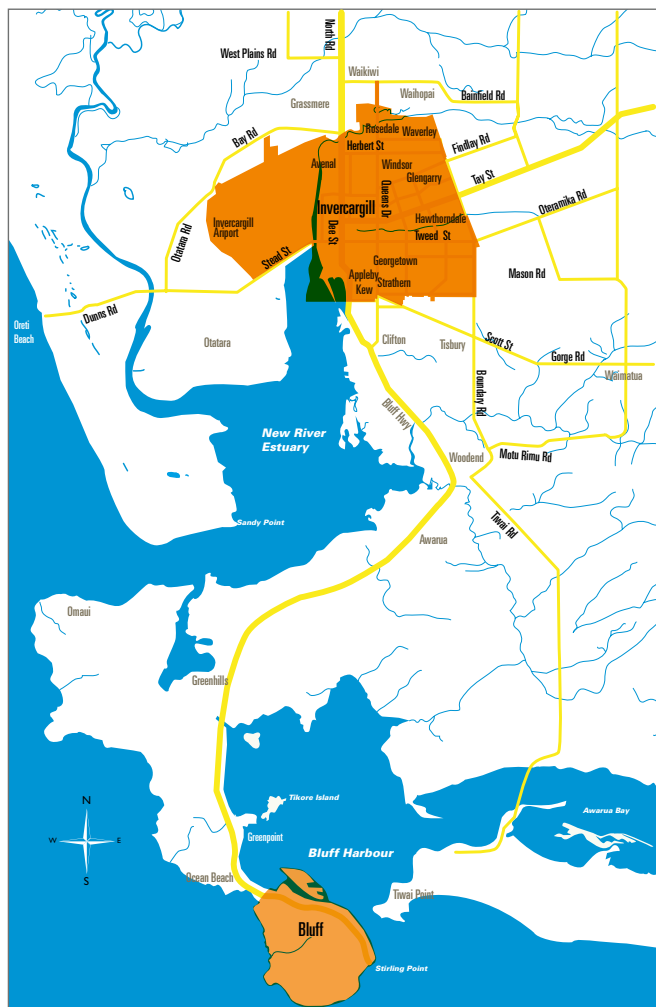
EIL owns the electricity network equipment to supply over 17,200 consumers within Invercargill City and Bluff with reliable, safe and secure power.

The Company was formed in 1991 but has supplied power to Invercargill since 1905, previously operating as the Invercargill Municipal Electricity Department.

EIL delivers 272GWh (gigawatt hours) of electricity annually to the houses and businesses connected to the network.

Eighty-eight per cent of EIL's consumers are residential, although the network supplies some significant industry users as well.

EIL is owned by the Invercargill City Council through its subsidiary, Invercargill City Holdings Limited.



EIL Network Area

The Directors are:



Neil Boniface (Chair) JP

Neil is a Director of PowerNet Limited, member of the OtagoNet Governing Committee, Director of Electricity Southland Limited, an Invercargill City Councillor and Chairman of Council's Finance and Policy Committee. He is also Chairman of Invercargill Venue and Events Management Limited and the Southland Warm Homes Trust.

He operates a driving school business in Southland and also serves on several charitable trusts.

Neil is a Chartered Fellow of the Institute of Directors.



Sarah Brown LLB BA

Sarah joined the Board of EIL on 1 November 2013.

She is an Associate with Tavendale and Partners, specialising in general commercial and rural based legal work. Sarah has been the Council Chair of the Southern Institute of Technology since 2011 and is also on the Board of Kindergartens South.

Sarah is a Member of the Institute of Directors.



Thomas Campbell BSc (Metallurgy)

Tom is a former Managing Director of Comalco and General Manager of the Tiwai Aluminum Smelter who now works as an independent company director.

His directorships include PowerNet Limited and Todd Corporation, as well as being the Chair of both GNS Science and the Energy Efficiency and Conservation Authority (EECA).

Tom is a Chartered Fellow of the Institute of Directors.



Darren Ludlow

Darren has been a Director of Electricity Invercargill Limited since November 2010.

He is a fifth-term Invercargill City Councillor and the City's Deputy Mayor. Darren is a Director of PowerNet Limited, a trustee for several community groups and chairs the Southland Museum & Art Gallery Trust Board.

He has worked in the media and communications industries for 25 years and currently manages Radio Southland.



Ross Smith BCom

Ross was appointed to the Board of Electricity Invercargill Limited in November 2003 and is the current Deputy Chair.

In July 2014, after 22 years in the role, he stepped down from the position as Chief Executive of SBS Bank to concentrate on his Director roles.

At the same time he relinquished his Director position at SBS Bank, Finance Now Limited, Funds Administration NZ Limited and Southsure Assurance Limited. He continues as a Director of PowerNet Limited and Peak Power Services Limited.

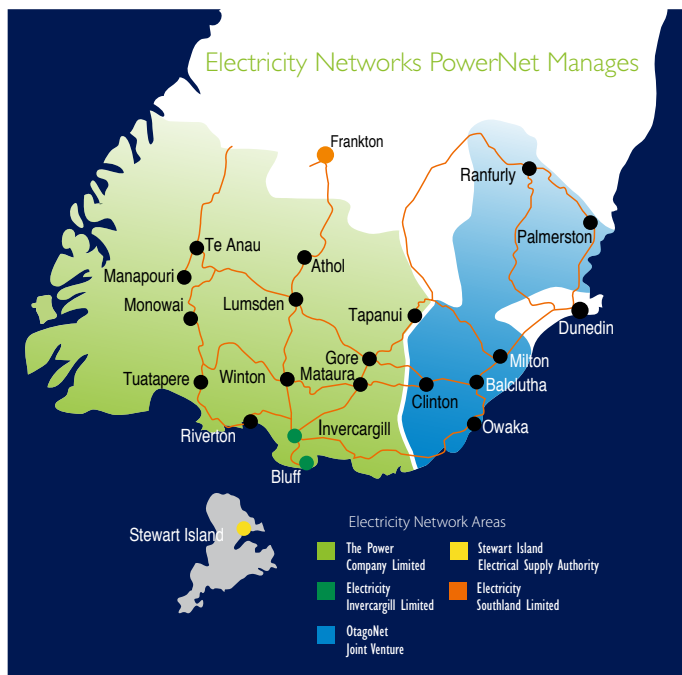
Who is PowerNet Limited?

PowerNet is the fifth largest electricity network management company in New Zealand.

The company manages assets with a regulatory value of over \$500 million, maintains and operates 13,880kms of power lines and cables and 15,655 transformers. The combined networks deliver electricity to over 67,000 customers.

The total energy conveyed through the PowerNet managed networks is 1,445GWh, with a maximum demand of 263MW.

PowerNet staff work from two offices in Invercargill and depots in Frankton, Lumsden, Te Anau, Winton, Gore, Balclutha and Stewart Island. The company also operates a 24/7 System Control Centre located at the Invercargill Transpower Substation.



Airport upgrade

With the construction of the new Invercargill Airport terminal underway, EIL took the opportunity to undertake some planned maintenance work and replace the 50 year old 300kVA transformer and cables.

PowerNet technical distribution supervisor Ray King says during the maintenance a temporary supply to the airport was provided from a 550kVA generator owned by PowerNet.

PowerNet's electrical fitter/cable joiner Jason Nicolson supervised the onsite project.

"The benefits of using the 550kVA generator meant we could minimise the outages. The only outages experienced during this project consisted of two minutes to switch the load on to the generator and a further two minutes to disconnect the load after work was completed. Both shutdowns were co-ordinated around the airport's flight timetables," Ray says.

"When we installed the generator and transformer we worked between flights so as not to block emergency exits and baggage trolley routes," Ray says.

The maintenance work took just four days to complete and will ensure the new airport building will receive a reliable supply of electricity in the future.



PowerNet staff Jordan Coutts, Allister Hitchcock and Jason Nicolson lifting the Caterpillar generator into place

Windsor New World upgrade

Capacity demand in the suburb of Windsor saw a new transformer installed at Windsor New World supermarket in October. With load demand and growth increasing in the area, PowerNet saw the need to replace the existing 500kVA transformer with a larger 750kVA transformer.

PowerNet technical distribution supervisor Ray King says with extra loading required for the supermarket and a greater supply demand within the Windsor community, it was necessary to increase the supply capacity.

"The new ETEL 750kVA transformer also has a Schneider SF6 ring main unit fitted within the equipment," Ray says.

Four PowerNet staff worked on the upgrade with electrical fitter/cable joiner Paul Barclay the on-site project supervisor. Bond Contracts completed the groundwork at the site.

"The transformer was placed beside the existing 500kVA transformer and once the new supply was lived in the old equipment was dismantled and removed," Ray says.

The installation took two weeks to complete, with customers offloaded onto another feeder to ensure no outages occurred.

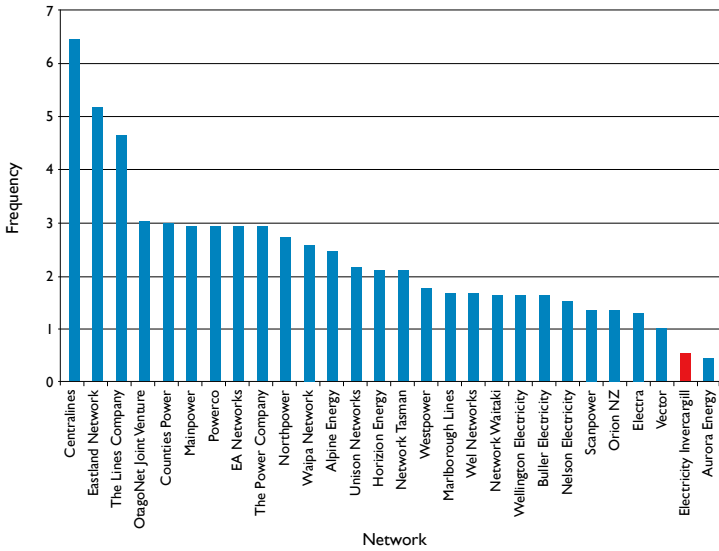


Phil Wilson and Ken McWilliam (Bond Contracts) with Peter Guise and Paul Barclay (PowerNet) placing the 750kVA transformer on-site at Windsor New World

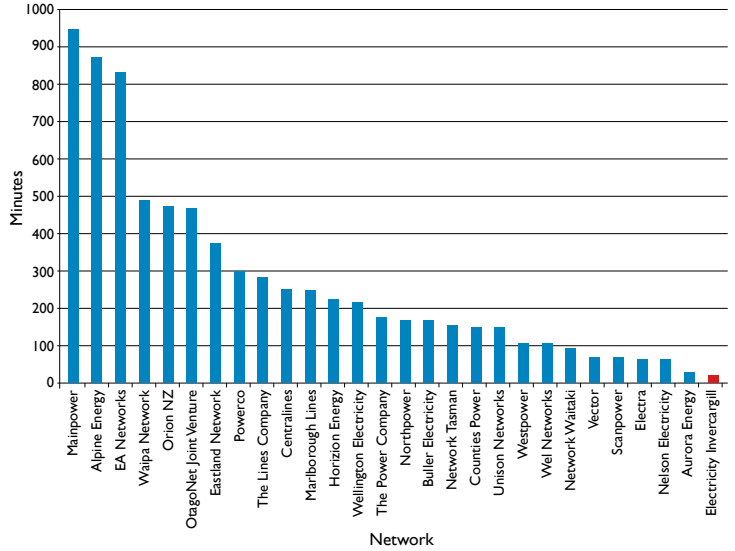
Network Reliability

The graphs below are known as reliability graphs. These show EIL's performance against other network companies in New Zealand. The graphs highlight how reliable the EIL network is and how infrequently customers are affected by power outages compared to other network customers in New Zealand.

Number of times each year a customer can expect to have a power cut
Industry SAIFI as at 31 March 2014

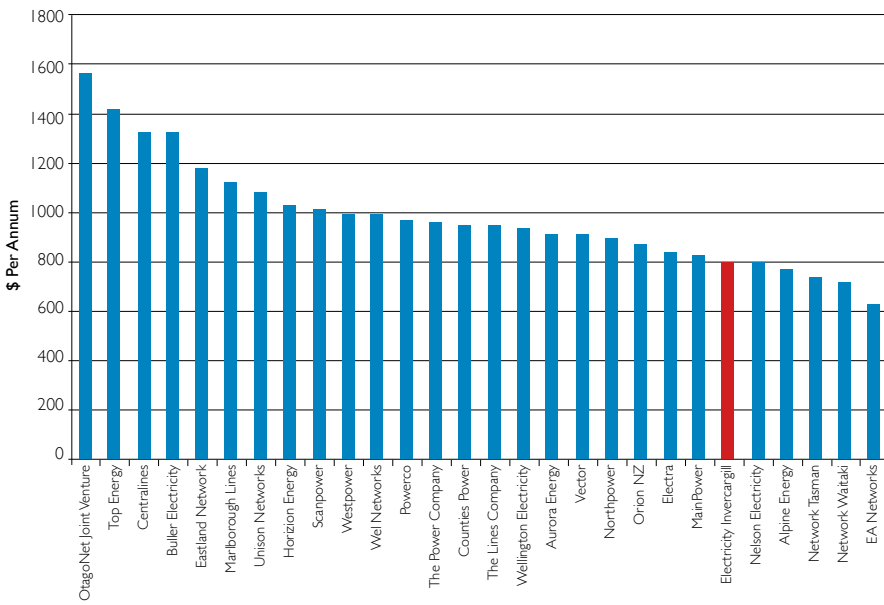


Duration in minutes a customer can expect to be without power each year
Industry SAIDI as at 31 March 2014



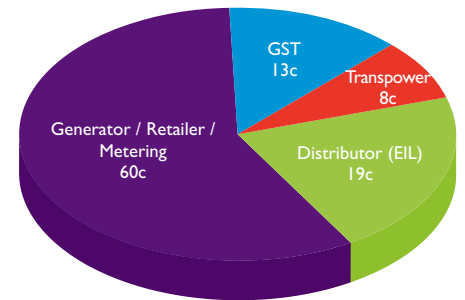
New Zealand Domestic Electricity Prices as at 31 August 2014

This graph shows the average cost of consumers electricity network line charges in comparison to other networks in New Zealand.



Source: Ministry of Economic Development - Quarterly survey of domestic energy prices August 2014

Breakdown of your electricity dollar



Network Statistics - at 31 March 2014

Consumers Connected	17,277
Residential Consumers	15,175
Industrial Consumers	125
Commercial Consumers	1,977
Network Length	657km
Consumer Density	26.3 consumers/km
Number of Distribution Transformers	450
Maximum Demand	63.6MW
Total Energy Conveyed	272GWh
Regulatory Value	\$64 million



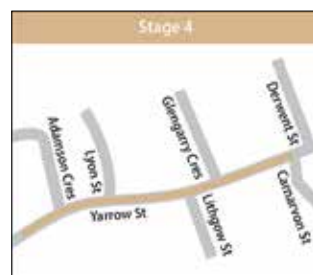
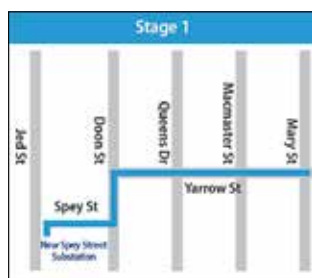
33kV cables project continues

Laying the new 33kV cables for EIL's new Spey Street Substation began in September. The cables, which will run to Spey Street from the Transpower Invercargill Substation in Tuai Street, will improve the performance of the EIL network for the future.

Contractor Delta and subcontractor Bond Contracts Limited are expected to complete the 4.1km project in March 2015.

PowerNet's project manager Mark Zwies says the project will future-proof Invercargill's CBD ensuring the residents and businesses have a reliable and secure electricity supply with the capacity to meet future growth in the city.

"The project has been split into 700m sections; there are six stages along the project route. It is anticipated we will have stage four completed prior to Christmas," Mark says.



Stage 2 cables pull on Yarrow Street



Spey Street Substation

Construction of the new Spey Street Substation has now commenced with the \$5 million project expected to be completed by March 2015.

The substation build is running in conjunction with the laying of the new 33kV cables from the site in upper Spey Street through to the Transpower Substation in Tuai Street.

PowerNet project manager Mark Zwies says the new substation will replace the existing Doon Street Substation which was situated near the Invercargill water tower. Seismic testing had identified the Doon Street Substation as a high-risk location if an earthquake should occur.

This project is one of the most significant upgrades to Invercargill's electricity network. The new 33kV cables and substation will ensure EIL remains committed to its consumers by providing a high quality, safe and reliable supply of electricity to the 6,300 residents and businesses in the CBD.

"The new substation will be fully enclosed, housing two 33/11kV transformers, 33kV and 11kV switchboards and other associated electrical equipment," Mr Zwies says.

The work is being undertaken by contractors DECOM and subcontractors Calder Stewart.



Spey Street Substation under construction



EIL Asset Management Plan

Every year, EIL prepares an update to its Asset Management Plan (AMP).

The AMP outlines planned projects to maintain and grow the EIL network over the next 10 years.

"The AMP is an important part of our forward planning," PowerNet chief engineer Roger Paterson says.

"For example, we need to plan for future needs of residential and commercial customers to ensure the network has sufficient capacity to provide safe, reliable, and efficient power. This is why we are undertaking the new 33kV cable project from the Transpower grid exit point off Findlay Road to Spey Street."

Roger says other projects can arise unexpectedly.

"Our new Spey Street Substation came about, in part, because the Doon Street Substation was at risk if the Water Tower was damaged in an earthquake. If Doon Street Substation was out of commission, it would seriously affect the electricity supply to a lot of Invercargill."

As well as the big projects, Roger says the AMP outlines the smaller renewal projects. "As an example, we have an ongoing programme of replacing pillar boxes around the network," he says. "Most people won't even notice this work occurring, but we need to do it to ensure safe, reliable and efficient power to EIL consumers."

Most of the projects outlined in the EIL AMP over the next two years are guaranteed to take place, although this can change.

"As we saw with the Doon Street Substation, circumstances can change and events might occur that were not predicted, either advancing or delaying some projects," Roger says. "While it doesn't happen that often, we review the AMP annually and amend it accordingly."

The AMP is open for public submissions every year. "We invite submissions from all stakeholders. This process starts in July each year and the new plan is published by 31 March the following year," he says.

The EIL AMP can be found at <http://www.powernet.co.nz> under the Line Owners tab.

Southland Warm Homes Trust

The work of the Southland Warm Homes Trust (SWHT) is continuing after funding from the Energy Efficiency and Conservation Authority (EECA) was approved for the Healthy Homes Programme.

The SWHT, in conjunction with EECA, has carried out insulation and heating retrofits in over 5,000 Southland and West Otago homes since 2008.

Funding under EECA's Healthy Homes Programme is targeted at those who stand to benefit most from having their homes insulated, those being low income households with high health needs, including families with children and the elderly. Landlords with eligible tenants are also included but will be required to make a contribution.

To be eligible, homes must have been built prior to 1 January 2000. Occupants must have a Community Services Card (CSC) and those with high health needs must be referred through an approved referral service.

In addition to the continued EECA/SWHT programme, SWHT and Awarua Synergy are also offering a summertime subsidy of up to \$2,000 for middle income families to undertake insulation. To find out if you meet the qualifying criteria, phone 0800 927 676.

The SWHT is very pleased to be able to carry on the work begun in 2008 and assist the more vulnerable members of our community.



Funding for:	Insulation Contribution		
	EECA	SWHT	Home Owner
Residential dwelling built prior to 1 January 2000, and CSC holders with one or more occupants under 17 years or over 65 years or who have a medical referral	60%	40%	*Free*
Landlords with CSC holding tenants with one or more occupants under 17 years or over 65 years or who have a medical referral	60%	15%	25%
		SWHT	Awarua Synergy
Qualifying middle income families (Summertime subsidy)		\$800	\$1,200

For more details contact the SWHT on 0800 WARM SOUTH or 080 927 676

Distribution Automation

A clever idea utilising remote switching technology will help reduce EIL's System Average Interruption Frequency Index (SAIFI) and System Average Interruption Duration Index (SAIDI).

The SAIDI and SAIFI indices are a key measure of how badly power cuts affect customers in the EIL network.

"Most unplanned power cuts happen when an electrical fault occurs and makes a power line unsafe to operate," network assets engineer Bevan Cooper says.

"We are implementing a distribution automation system on the EIL network that reduces the number of customers cut off when a fault occurs toward the end of the line. For faults nearer the start of the power line, this system will let us remotely isolate the fault and quickly restore power to customers further down the line.

"Without this system, customers would have to wait until a repair crew could travel to the site before any power could be restored.

"Using this distribution automation helps us reduce the average length of time consumers are without electricity in the event of unplanned power cuts," Bevan says. "It will be a great benefit in the event of storms, or accidents such as when a vehicle takes out a pole."

The distribution automation system has been approved by the EIL Board and will be rolled out in 2015.



Safety message - Before U Dig

With the majority of EIL's network underground, knowing what is down below can help you avoid any nasty surprises when you start digging around your home or business.

EIL is part of a "one stop shop" which helps you identify underground services before digging.

Before U Dig (www.beforeudig.co.nz or 0800 248 344) is a service where you provide details of planned works on a particular site.

The Before U Dig team then contacts any member suppliers (such as Councils, telecommunication providers and electricity network companies) in the area who then supply information about the location of underground infrastructure to you before starting work.

You should always ensure you know where cables are if you are planning to dig more than 300mm below the surface – Before U Dig can help, or we can send out staff to physically locate cables for a small cost.



Xmas Message from EIL

A Merry Christmas and a very Happy New Year to all our consumers, contractors, stakeholders and PowerNet staff. It has been another busy year on the EIL network.

Once again EIL continues to support local activities through the erection of the Bluff and Invercargill City Christmas lights and continuation of funding for the Southland Warm Homes Trust (SWHT) for insulation and heating installations.

The major work to future proof EIL's supply through the construction of the Spey Street Substation and the new 33kV cable from the grid exit point at Tuai Street is moving at pace and will be a great asset for our customers.

Our approved works programme for the next two years will continue to augment and improve the network to keep our performance at the forefront of electricity distribution in New Zealand.

Our relationship with The Power Company has also borne fruit this year through our joint takeover of the OtagoNet network.

The EIL board wishes you all the best for the holiday season and we will continue to ensure Invercargill has a safe, secure and reliable electricity supply into 2015.

Neil Boniface
Chairman

Faults (Freephone)

EIL has a 24 hour, seven day a week call centre you can contact on 0800 808 587.

At home or at work, if your lights are flickering or dimming, it could be indicative of a potential problem that could turn into a major cost.

"Dim or flickering lights are a warning something is wrong with your electricity connection," says PowerNet health, safety, environment and quality manager Graeme Webby. "The first thing you should do is turn off or unplug as many appliances as possible and then call our faults number on 0800 808 587."

Mr Webby says if there is a problem with the electricity connection, the chance that electronic equipment could be "fried" is high. "There have been cases where a faulty connection has ruined all manner of appliances – TVs, washing machines and so on – so it is important to ensure you have surge protection on your expensive appliances."

Sometimes the fault will be in the house itself which will then require an electrician, but if homeowners call the faults number a faults person will check your network connection.

"At home or at work, you should always take the maximum care around electricity," says Mr Webby.

"Never go near fallen power lines or anything that could potentially be live after an accident."

If you see -

- Broken or leaning power lines
- Power lines clashing or arcing
- Power lines touching a vehicle
- Trees close to or touching power lines
- Anything that appears unusual on our electricity network

Contact the System Control Centre straight away.



PowerNet Trainee Line Mechanic (Winton Depot) - Robert Allen

If you have any concerns about our service call us on 03 211 1899 and we will be pleased to help – we have a free internal complaints process. If we are unable to resolve your concern you can contact the free and independent Electricity and Gas Complaints Commissioner on 0800 22 33 40 (www.egcomplaints.co.nz)