

Connections

Marlborough Lines

Marlborough Lines Newsletter • Winter 2012

Headlines

Plans to improve reliability

We're continually investing in our network to improve reliability and meet increased customer demand. This year we have budgeted \$13.7 million for capital expenditure and \$8.0 million for maintenance.

Our feedback from customers is that they require a reliable supply of electricity. You can be assured we are continually seeking to improve our performance in this regard and this is one of the primary reasons why we continue to invest in maintenance and capital expenditure.

To wait until problems occur is too late and our ideal is always to eliminate problems before they impact on your electricity supply.

Circuit breakers reduce faults

A major focus for the year is additional automation in the network to improve reliability and minimise the effect of faults such as lightning, possums, storms and vegetation. We will be installing additional circuit breakers to reduce the areas affected by faults and extend our control system to allow for remote monitoring and control of the circuit breakers.

New substations increase capacity

Our Riverlands 33/11kV zone substation is fully loaded and we are building a new 33/11kV substation at Cloudy Bay Industrial Park. This substation will have two 16.5 MVA 33/11kV transformers and will provide additional capacity for growth in the area as well as enhancing reliability. This substation will be completed by 1 April 2013.

Original lines renewed

As our network ages it is necessary to renew parts of it. Over the last few years we have renewed 14km of the 33kV Cobb line supplying Havelock and Rai Valley. This line was built in 1946 and was the original line connecting Marlborough into the National Grid. This year we will be renewing 6km of the line from the State Highway near Slapes Gully to the top of Ruapeka Ridge.

We are also renewing some of the older parts of the 11kV network and this year will be working on a number of lines including Wairau Valley, Elaine Bay, Mirza/Ure, Wairau Bar, Tirohanga to Kekerengu, Battys Road and in between Havelock and Canvastown.

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Sponsorship: Marlborough Lines Stadium 2000 refurbishment

We have been principal sponsor of the Blenheim-based Stadium complex 'Marlborough Lines Stadium 2000' since 2006.

In 2010 the Stadium embarked on a \$15.5m project to upgrade its facilities, and the redeveloped state-of-the-art Aquatic and Health and Fitness Centre was officially opened on 27 April 2012.

The Stadium complex, containing substantial indoor facilities and swimming pools, is the most popular sporting/event facility in the region and is used for a range of community activities other than sport.

The sponsorship partnership has helped ensure the ongoing success and development of the stadium for the benefit of all Marlborough locals and visitors alike.



Before



After

Middle Renwick Road undergrounding project

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Energy efficiency

Water heater control (ripple control)

The hot water cylinder in a typical Marlborough house contains 180 litres of water and takes four to five hours to heat to full temperature from cold. Most cylinders are A grade and retain their temperature for a number of days with no power provided no water is drawn off.

In general around 40% of a household's energy use is hot water.

Marlborough Lines offers two options in its pricing for water heating control:

- A 13 hour rate for 180 litre cylinders, and
- A night rate for which supply is provided between 11pm and 7am. Although this option provides greater savings it is only recommended for cylinders of 270 litres or greater.

The actual retail charges you pay for your electricity are set by your Retailer, not Marlborough Lines.

The reduced cost of energy for the ripple controlled hot water cylinder reflects the savings to Marlborough Lines in being able to turn the cylinders off for short periods to control the maximum load being drawn off the National Grid.

Transpower's charges to Marlborough Lines reflect the power being drawn from the grid when the load in the Upper South Island (north of Ashburton including the West Coast) is at its highest. The lower the total Upper South Island load and the lower the Marlborough Lines load, the lower the charges are.

In practice, this results in most 13 hour hot water cylinders being on for 22-24 hours a day except for one to three weeks a year when the Upper South Island load is at its highest. During the weekdays of these weeks, and depending largely on weather in the Upper South Island, water heating channels can be turned off for up to 13 hours a day, although they are generally only off four to eight hours a day.

The hot water cylinders should always be hot at 7am, however they may cool off for periods of the day between 7am and 9pm depending upon the size of your cylinder and use. Information showing the number of channels on/off can be found on our website at www.marlboroughlines.co.nz – click on the Network Status link.

Safety message

Never approach fallen power lines

It is absolutely imperative to treat all power lines as live at all times.

Tragically a farmer was recently electrocuted in Canterbury after approaching a power line which was close to the ground. Sadly there has also been a fatality in Marlborough in recent years caused by a person walking into a power line after getting out of a car which had crashed into a power pole. Two passengers in the same vehicle were lucky to survive the same circumstances and were admitted to hospital with burns.

There have also been other incidents in Marlborough where motor vehicle accidents have caused power lines to fall.

Even if they are lying on the ground power lines should not be approached. In some instances when lines are lying on the ground, voltages can occur across the ground.

In Marlborough we have also had a fatality some years ago where a farmer came in contact with a high voltage line through a truck contacting the line. There have also been other circumstances where people have been lucky to survive indirect contact with high voltage lines as a consequence of operating machinery or moving irrigation pipes.

Elsewhere in New Zealand in recent years two people have died as a consequence of accidentally driving stakes into buried electric power cables – in one instance just to keep people off a new lawn.

Call us before you excavate

So if you are contemplating excavating or driving stakes where there may be cables please give us a call. Electricity cables can be easily located and one phone call may prevent the loss of life.

It is also necessary to give careful thought when using electrical appliances in wet or outdoor situations and ensure that protection is provided by an earth leakage circuit breaker or an isolating transformer.

Again, in previous years sadly two people have died in Marlborough because they operated power tools in close proximity to water. These events can easily be avoided by working safely.



If you require any advice on electrical safety please give us a call on (03) 577 7007. We will be only too happy to assist.

How to avoid accidents near power lines

Follow these rules to avoid accidents when working or playing near power lines:

- treat all lines as live
- never go near or touch a downed line
- never climb any power pole or pylon
- never fly kites, model aircraft or play with fishing poles near lines
- look out above when handling long objects or using mechanical plant
- high voltage electricity can jump across gaps – you don't need to touch the lines to get killed, stay at least 4m away at all times
- take care trimming trees so that they don't fall into the lines
- avoid lighting fires under lines – call us to discuss this first
- look above and keep well clear when handling a boat mast or moving a yacht near power lines



Network status

Next time you want to know the status of our network, or when outages are scheduled to occur, check out the Network Status page on our website – www.marlboroughlines.co.nz/ConsumerInfo/NetworkStatus.

This page provides information on faults, planned outages to allow maintenance to occur, network load, and water heating channel shedding. It is updated regularly.

For all outage information we encourage you to look at the Network Status page first if you can. Alternatively, if you are experiencing problems with your electricity supply please don't hesitate to give us a call on (03) 577 7007.

Awards

Annual report gold



We are delighted to report...

For the second year running Marlborough Lines has been awarded a prestigious Gold Award in the 2012 Australasian Reporting Awards. The award is for our 2011 Annual Report which had the theme 'We'll be there — no matter what'. The report highlighted our goal to be there for our communities in good times and bad — through floods, earthquakes and financial recession.

To receive a gold award, a report must demonstrate overall excellence in reporting, and provide full disclosure of key aspects of the core business. A gold award is expected to be a model report for other organisations in the same field.

Plant to protect your network

When trees grow too close to power lines they have the potential to cause power fluctuations and appliance damage, power failure, fire, electric shock or electrocution.

Tree owners are legally required to ensure their tree(s) don't grow too close to power lines. The Electricity (Hazards from Trees) Regulations 2003 were introduced by the Government because trees need to be kept at a safe distance from electricity lines for public safety and to protect your electricity supply.

Marlborough Lines has an ongoing vegetation control programme in place to maintain a safe clearance between trees and power lines. The objectives of our programme are to reduce the risk of:

- accidental electric shock or electrocution
- fires caused by electricity
- power fluctuations or interruptions caused by branches touching or being blown into power lines

For all vegetation control work we try to obtain a solution with the tree owner that will eliminate the problem for the long term, eg. through tree felling rather than trimming. If this is not achievable then we work with the tree owner to reach a mutually acceptable solution. At the minimum the requirements of the Electricity (Hazards from Trees) Regulations 2003 must be met.

We can recommend what trees to plant

Plant only recommended trees under or near our power lines. Recommended trees grow less than four metres tall and don't tend to shed branches or fronds. For a list of recommended trees, phone us on (03) 577 7007, or email info@linesmarl.co.nz.

Electricity (Hazards from Trees) Regulations 2003

The Electricity (Hazards from Trees) Regulations 2003:

- define safe separation distances between trees and power lines
- specify who is responsible for ensuring clearances are maintained
- place potential liability on the tree owner if any damage or accident occurs when trees touch power lines

Further information about the Electricity (Hazards from Trees) Regulations 2003, including the responsibilities of tree owners and network companies, can be found on our website www.marlboroughlines.co.nz.



Please help us to help you. If you know of trees that are causing interference or have the potential to cause interference with an electricity line please give us a call on (03) 577 7007.

From us to you...

Useful information for customers

The electricity system

The process of electricity transfer, from the original generation source to the end user.



1 Power stations

Electricity is generated by wind and hydro-electric power stations in the South Island. The North Island also has thermal and geo-thermal plants. The DC link allows energy to be transmitted between the North and South Islands.

2 Transmission lines

Transpower own and operate the National Grid. This consists of the Transmission Lines (220kV and 110kV) and the equipment used to connect the major generators with the distribution networks (eg. Blenheim substation).

3 Distribution network

Marlborough Lines owns and operates the distribution network (ie. the power lines and equipment that transport power from the National Grid to a

customer's property boundary) within Marlborough. We also operate a business unit for the construction and maintenance of lines. Marlborough Lines has 285km of 33kV lines, 2,400km of 11kV lines, and 500km of 400/230V lines.

4 Zone substations

Marlborough Lines owns 14 zone substations which convert 33kV electricity to 11kV.

5 Distribution transformers

Marlborough Lines has 3,000 distribution transformers which convert the 11kV electricity into 400/230V.

6 Electricity user

The final part of the 400/230V lines from the street to the house is owned by the electricity user.

From time-to-time we get questions from customers seeking clarification about our pricing and where Marlborough Lines fits into the electricity supply chain. The following information provides a simple overview of the New Zealand electricity system.

Currently the New Zealand Electricity Market consists of five generators who sell their electricity into the market, and 18 retailers who buy the electricity from the market which they on-sell to their customers.

Transpower delivers the electricity from power generators via the National Grid to grid exit points across the country. Electricity distribution businesses, like Marlborough Lines, then transport that electricity via their local networks to the retailers' electricity customers. Currently in New Zealand there are 28 electricity distribution businesses.

Marlborough Lines charges retailers for using the distribution network to transport electricity to their customers.

Marlborough Lines' charges for distribution comprise a fixed daily charge and a variable charge for each kilowatt hour consumed. Retailers also charge fixed and variable components but typically merge them with our charges.

If you would like to know the individual Marlborough Lines components of your bill, our call centre staff can help you (03 577 7007) or, alternatively, our charges are published on our website www.marlboroughlines.co.nz.

Environment

Springlands substation landscaping

You may have noticed some changes in the landscape around our Springlands substation (Murphys Road) and the Transpower compound (Old Renwick Road) over the last few months.

As well as softening the substation infrastructure, we have taken the opportunity to establish a public park on the corner of Murphys and Old Renwick Roads, where people can wander through and take time out to sit and enjoy the pleasant surrounds.

The planting includes spring bulbs, meadow which will bloom with wild flowers during the summer months, ornamental orchard trees, and an area of native planting to attract Tui and to align with Council's Tui to Town initiative.

Once the plants become more established, we look forward to seeing this area being used and enjoyed by the community.

