

Short Circuit



FEBRUARY 2012

Advice to members

Tracey Gordon, Energy Account Manager



Tracey Gordon

The challenges facing rural electricity users this summer lie not only within the farm boundary, they include remote metering and the usual risks around moving machinery and irrigation equipment. Away in the distance through the hydro lake catchments, reserves are getting low and users face some risks around higher pricing extending for a number of months yet.

Lake levels a concern

The South Island lake levels are very low at present, sitting almost 19% below the historic long term average for this time of year. The situation is pushing up retailers' current pricing offers, and uncertainty over future rainfall is only adding to that price pressure. For clients with spot price exposure it is important to be up to date with these prices, given they are higher than typically forecast for this time of year. WITS Free to Air is a website that can provide up to date information on what is happening in the electricity market, including the latest pricing—www.electricityinfo.co.nz.

Watch for wires

This busy time of the year on-farm demands vigilance around power lines, remembering safety has to come first. With large machinery being used and irrigators being moved, awareness of power lines is critical. Checking clearances and ensuring lines haven't slumped causing clearance levels to lower should be conducted before any movement of equipment. Any issues with slumped lines or possible lines down mean the network company should be contacted as soon as possible to have these fixed, removing any potential hazard.

Contact ATS Customer Service team on 0800 289 287 to get the telephone number of your network company.

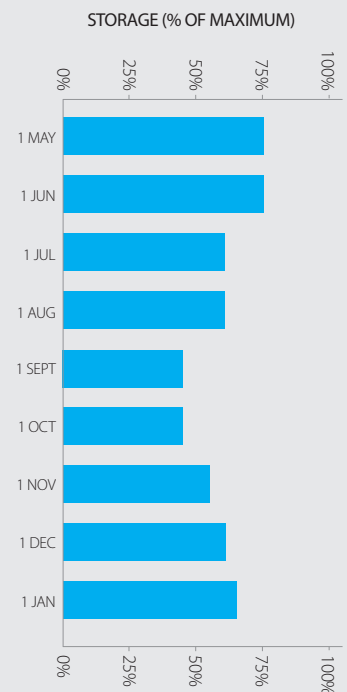
Equipment shutdown

New advanced metering systems require mains power to remain on to enable retailers to obtain meter readouts. Should mains power have to be shut off for safety reasons, or because use of the system is not required for some time, the farms' electricity retailer will need to be notified. A simple call to ATS Energy on **0800 289 287** will ensure the retailer is notified. This will also ensure the electricity retailer does not send out a contractor to investigate why a meter cannot be read remotely, and the customer being charged for that visit as a result.

Anna Taylor, Meridian Energy Agribusiness Partnership Manager, will be in-store at ATS Ashburton between 10am and 4pm on Wednesday 29 February. Come in and see Anna to discuss your electricity requirements or call me to arrange a time to meet her.

Call me today on 0800 289 287 or 03 307 5107 for any queries or problems about your energy needs and I can help you through these.

HYDRO SITUATION



Information taken from NZX Energy

DISCLAIMER: The purpose of this information is to outline historic data and is intended for general reference only

Electricity trading—the quiet, essential market

By Richard Rennie

The buying and selling of electricity in New Zealand is a non-stop 24/7 activity with the value of electricity established and updated every half an hour.



As generators sell their electricity into the market, retailers will be buying the electricity their customers, both domestic and business, want from that market.

The New Zealand market with its key generators, Contact, Genesis Energy, Meridian Energy, and Mighty River Power, also has these generators as the main “wholesale” retailers of the energy they generate.

The role of electricity traders then is a complex one, to analyse the capacity and ability of the generators’ substantial generation assets, while also keeping an eye on retailing contract prices set with client distribution companies, ensuring that the amount of electricity, the price it is set at and the period it is set for are all sustainable.

The New Zealand electricity market essentially comprises four key areas—the generators, the retailers (also the generators and therefore known as GenTailors), transmission line owners, and distribution networks.

Distribution networks are owned by assorted community trusts and companies, for example Electricity Ashburton, while Transpower is the owner of the high voltage transmission lines that move that wholesale electricity out to its markets on local distribution lines.

Transpower is also tasked with the job of System Operator for the market, overseeing generator capacity and ability, while also receiving bids from generators for the price they can generate electricity at.

It also has the responsibility of ensuring sufficient reserve to cover the risk of a large generator “tripping” out, and completely losing its ability to generate onto the national grid.

This is why at times spot prices can surge dramatically as a generator may be required to drop back generation output, to act as a reserve. Distribution companies can also aid reserve levels through such controls as ripple controlled hot water heating being utilised to squeeze down demand.

Generation companies forward their electricity prices for generating x amount of power every half an hour to Transpower as System Operator. Transpower then feeds the generation companies’ price offers into a complex programme

known as the Scheduling, Pricing and Dispatch (SPD) model. Transpower will also receive information from the generators on their capacity at that time, constraints and level of generation at the given price.

When Transpower has received each generators’ price for generating across a range of electricity amount, it will rank the prices and amounts (Mega Watts) from top to bottom. This will then be compared to demand in that half an hour period.

Price “discovery” then comes every half an hour from these generation offers, demand by customers at that point, and any limitations on generators.

From here Transpower will instruct the generators on how much electricity to produce, at what price, and how much reserve to maintain.

This electricity is sold into the market’s Compulsory Pool, essentially the National Grid, and conducted to 250 Grid Exit Points (GXP)s along the national grid. From there the electricity is purchased by network companies, and delivered to end users.

New Zealand’s geography brings some unique challenges to those responsible for estimating supply capacity and prices for trading. With over half the population on the North Island and the bulk of generation assets in the bottom of the South Island, there is a heavy reliance upon a high quality high voltage system strung along the length of the country, with the added complication of having to also cross Cook Strait as a High Voltage DC current.

The added complication for New Zealand’s market is the reliance of 60% of supply coming from hydro schemes.

While a renewable resource for electricity generation, hydro can be susceptible to dry years, and with reserves can only extend for months without water replenishment, compared to years in regions like Scandinavia.

It is this lack of long term storage and weather dependence that helps explain some of the country’s volatile electricity prices in the course of a year, or even a season.

Introducing ATS Energy’s Electricity Partners



For all Genesis Energy enquiries please contact Tracey Gordon on 0800 289 287.



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