



## Let's Work Together on Issues of Electricity Supply

**Hydro conditions are poor, especially in the South Island where inflows have been persistently below average over the past six months.**

We need to see the Waitaki lakes replenished with some urgency over coming weeks and an overall improvement in the national hydro position. All eyes are also on thermal generation and plant availability.

The electricity supply industry is taking a proactive stance on the risk that 2006 will become another dry winter, perhaps akin to 1992. The Chief Executives' Forum, with representatives from all major electricity generators and retailers, has appointed a Dry Winter Security Coordinator to ensure that we share the same comprehensive view on the supply situation as it evolves.

It is too soon to speculate on the likely position over winter, but be assured that Meridian Energy will be assisting to sustain national electricity supply over the months ahead. We have a team developing initiatives for demand management

and electricity reduction this winter in each market segment, if the need arises. This year, the nation also has the Electricity Commission's reserve capacity to ease the supply situation, as it has already done in recent weeks.

At the time of going to print, the Electricity Commission announced its draft decision to turn down Transpower's proposed National Grid upgrade through the Waikato. Meridian Energy is a strong advocate of a strategic approach to Grid upgrading (see story on back page for more details), with recognition that this national infrastructure is of fundamental importance to energy security from now on; and indeed to economic stability. We are concerned that limited, "just in time" investment in new links on the Grid or "transmission alternatives" will inhibit rational decisions on new generation and put security of supply at risk in some areas of New Zealand.

With such focus on generation and transmission, we should not overlook the importance of distribution in energy supply nationwide. The distribution sector also faces critical issues arising from electricity demand growth, from investment requirements to replace and expand networks, and from a skills shortage that is particularly acute in the sector.

This *Meridian Report* is devoted largely to profiling the network companies and the issues facing them. As is the case throughout the electricity industry, the issues are ones in which we all have a stake.

KEITH TURNER  
CHIEF EXECUTIVE

# Market

## Spot prices rise on supply concerns

The electricity supply situation has tightened significantly since early last spring, due principally to low hydro inflows, especially in the South Island. As a consequence, spot market prices have risen sharply.

The average of spot prices at the Benmore, Haywards and Otahuhu reference points was 14.2c per kWh in the middle of April, compared with averages of 15.9c and 10.24c in the months of March and February respectively. In March 2005, the average price for the three reference points was a relatively low 6.2c. Spot prices have been rising on the back of below-average hydro inflows and storage levels since September 2005.

During March, the market was also coping with a large number of transmission and generation outages necessary for planned maintenance at this time of year. Spot prices last reached levels above 14c per kWh in March 2003, a period of mounting concern about supply constraints due to poor hydro conditions.

The market now holds similar concerns after six months of below-average national hydro inflows and storage. Indeed, the storage level has been lower than it was in the summer of 1991-92, prior to a winter in which New Zealand experienced electricity outages because of a supply shortfall. So far in 2006, North Island lakes have been re-charged briefly by rainfall in early February and again in mid-April, but the national storage level was just 89% of average early in May.

South Island hydro generation is substantially down on the corresponding months of last year. North Island hydro and thermal generation has been in line with last year. Under these circumstances, substantial southward transmission flows across the interisland HVDC link have become the norm. The weekly flow south in early April was 30 times higher than the flow north.

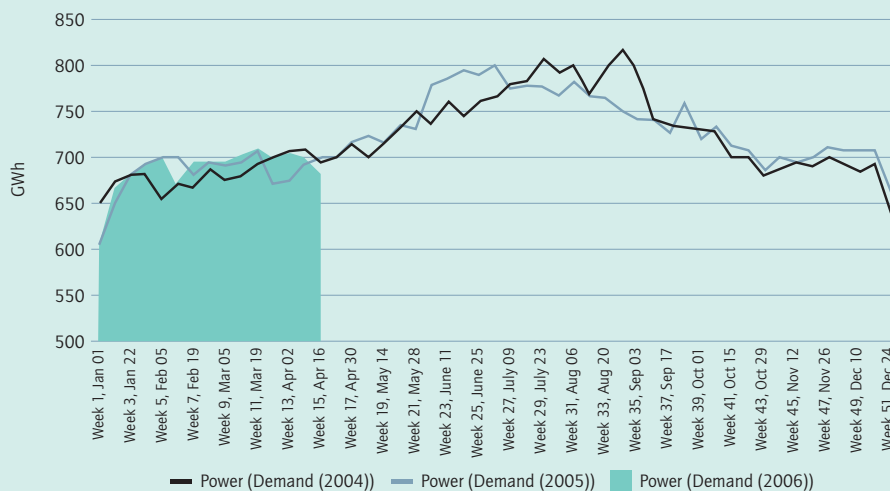
To assist supply in the South Island, Comalco has reduced demand at the Bluff aluminium smelter. This is being undertaken in conjunction with Meridian Energy as one measure to manage the real prospect of a shortfall in hydro generation this winter. The Electricity Commission's Whirinaki reserve generation plant was brought into operation in March during times of thermal plant outages and transmission constraints.

Disclaimer: This report is not intended to be a basis for any commitments entered into on the electricity market. Meridian Energy endeavours here to provide accurate information on market prices and volumes but it relies on third parties to a significant extent. Meridian Energy cannot, therefore, warrant the accuracy or completeness of the information here. Meridian Energy is not responsible or liable for any costs or losses arising from any reliance on the information.

## Demand

There has been little national demand growth so far in 2006. The first two weeks in April saw demand at the same level as in the corresponding period of 2005. For most of last year, weekly demand totals were at or below their levels in 2004 (with a 2.2% overall dip for the second six months of 2005).

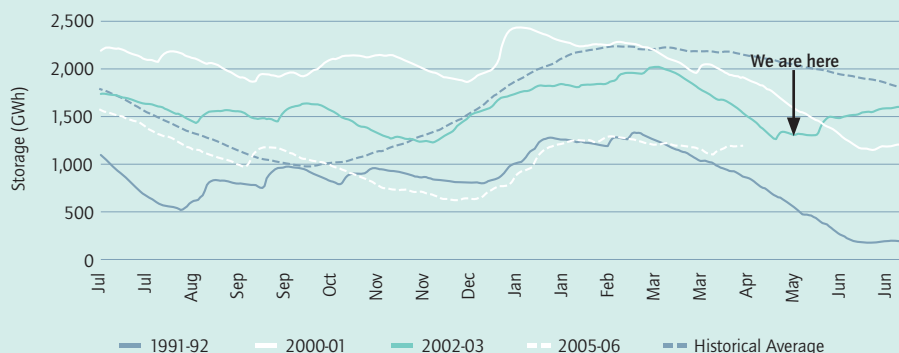
### National Weekly Electricity Demand



## Hydro Conditions

Reduced national inflow and storage levels over the past six months largely reflect the position at Lakes Tekapo and Pukaki, New Zealand's biggest (Waitaki) catchment for hydro generation. So far, 2006 is the second driest year on record for the catchment. In mid-April, Waikati inflows were just 65% of average for that time of year.

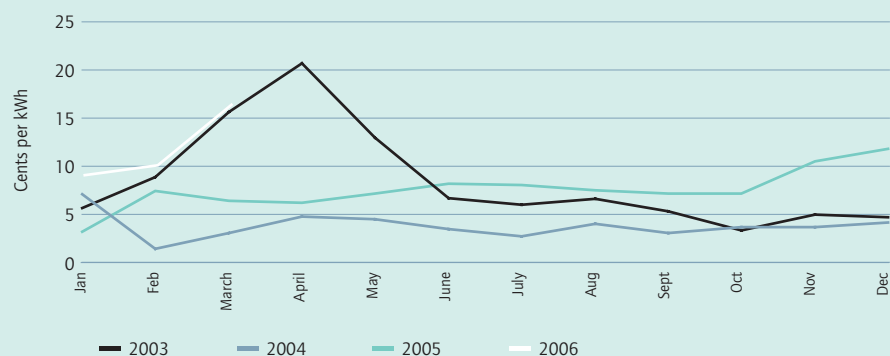
### Tekapo and Pukaki Storage



## Spot Prices

Spot prices have been at their highest levels in three years and have been up around 160% on levels of one year ago. In mid-April 2006, the average Benmore price was 15.63c per kWh, the average Haywards price was 13.06c and the average Otahuhu price was 13.95c. These prices were higher in early April (Benmore above 17c per kWh), before rainfall boosted North Island hydro levels somewhat.

### Monthly Average Spot Price of Haywards



See also "National Daily Hydro Storage" chart on back page.

# Profile

## Network companies provide distribution services

New Zealand has 28 electricity network companies that distribute electricity from the National Grid to consumers of all sizes and types. The map below shows network territories throughout the country.

### Distribution Services

In effect, the companies are providing distribution services to Meridian Energy and other electricity retailers. In all cases but one, retailers pay network companies for these services and pass the lines cost component on to customers. The lines component forms part of the total electricity bill, and for time-of-use customers is shown as a separate line item. This arrangement between distribution and retailing is referred to as "interposed pricing". The alternative "conveyance pricing" approach is applied by The Lines Company (Central North Island). The Lines Company bills electricity consumers directly for its line charges, and the retailers bill its customers directly for their electricity consumption. Other distribution companies have one-off conveyance pricing agreements with some major industrial and institutional sites in their network areas.

As part of their service, distribution companies are obliged to maintain voltage and frequency on their networks, and to limit any lines charge increases, under a regulatory regime administered by the Commerce Commission (see "Regulation" article).

### Ownership

The network companies vary widely in size and in ownership and governance structures. Ownership is by public or private shareholding, local bodies or community trusts (or a combination of these). The four largest companies are Vector Limited (25% listed public shareholding and community trust), Powerco Limited (owned by an international investor), Orion New Zealand Limited (local body ownership) and Unison Network Limited (community trust owned). Together these companies have around 66% of all Individual Connection Points (ICPs) across the distribution sector.

The network companies emerged through deregulation during the 1990s. Initially, traditional power boards and municipal electricity departments were corporatised by the Energy Companies Act 1992. In 1994, their territorial monopolies on power distribution and retailing were removed; the new companies were then able to compete for customers outside their own networks.

### Reforms

In 1998 the Electricity Industry Reform Act forced ownership separation between distribution and retailing/generating businesses. Today's network companies were formed after divestment of their retailing activities (mostly through sale to retailer/generators). The legislation recognised the natural monopoly nature of electricity distribution, and prevented cross-subsidisation between lines and retail.

Since 1998, the network companies have been confined largely to owning and operating distribution assets, although there have been regulatory changes to relax barriers on re-entry to generation. Network companies can make unlimited new investment in renewables and reserve energy, but must work within certain parameters around investment in other forms

of generation. For example, WEL Networks recently announced plans for a 24-turbine wind farm on the Whararoua Plateau near Hamilton.

Since 1998, there have also been some rationalisation moves across the sector. These included, during the period 1999 to 2002, a series of acquisitions and mergers among companies in Taranaki, Wanganui/Manawatu, Wairarapa, Hawkes Bay and Bay of Plenty to establish Powerco as the sector's second largest entity. Over the same period, Vector consolidated its role as the largest network company through incorporation of much of the former UnitedNetworks business in various North Island locations. In addition, companies have sought synergies in network building and maintenance through inter-company contracting of these operations.

### The Location of Each Distribution Company

1. Top Energy	15. Nelson Electricity
2. Northpower	16. Buller Electricity
3. Vector	17. Network Tasman
4. Counties Power	18. Marlborough Lines
5. WEL Networks	19. Westpower
6. Waipa Networks	20. MainPower New Zealand
7. The Lines Company	21. Orion New Zealand
8. Horizon Energy Distribution	22. Electricity Ashburton
9. Eastland Network	23. Alpine Energy
10. Unison Network	24. Network Waitaki
11. Powerco	25. Dunedin Electricity
12. Centralines	26. Otago Power
13. ScanPOWER	27. The Power Company
14. Electra	28. Electricity Invercargill



Source: PricewaterhouseCoopers

# Capacity

Network capacity – an issue for everyone

Capacity is an issue, one way or another, on all distribution networks. And everyone in the electricity sector has an interest in seeing load managed around capacity limits to reduce some of the pressure for new network investment and avert the risk of involuntary outages at times of peak demand.

Demand often rises sharply on cold winter days when more power is consumed for heating and on warm days in summer when cooling appliances are turned on, particularly in northern parts of the country. Rising national demand for electricity from economic and population growth is also putting pressure on capacity managed by distribution networks.

Some network companies have faced particularly strong load growth in recent years. The increased use of irrigation for dairy farming, most notably in Canterbury, has been a particular driver of load growth for some companies. For example, Electricity Ashburton saw a load growth of 18% over two years in 2000-02, with demand peaks up 19%.

Faced with overall demand growth and sharp peaks, many companies now work at smoothing load or shedding at peak times. The better alternative is to build additional capacity that will accommodate peaks, but be under-utilised during other time periods.

Orion New Zealand, for example, has a "major customer pricing" scheme for around 370 large electricity users in Canterbury. They have opportunities to reduce their electricity usage and the prices they pay by responding to ripple control signals sent by Orion as demand begins to peak across its network. The pricing scheme rewards industrial, commercial and institutional consumers who reduce usage, perhaps by turning off boilers or switching on their own generators, during these "control periods".

Orion also manages capacity issues on its rural lines by offering line charge rebates for irrigators who allow interruptions in their supply when Orion has a particular need to manage load. Likewise, Orion offers rebates for farmers who install capacitors on irrigation pumps in order to lessen variability in voltage in rural areas.

Network capacity is inevitably affected by the length of lines. Voltages drop and become more variable where lines are particularly long, and irrigation loads can exacerbate these factors.

Weather extremes also impact on network capacity. In hot conditions, overhead lines reach their temperature limits more quickly and are unable to carry as much capacity as in cool weather. Obviously high winds, snow and flooding can, and sometimes do, bring down lines altogether.

Losses are a key measure of network efficiency. Network companies always build and maintain networks with a view to limiting the loss of electricity that will occur. Such losses are recorded on each network as a percentage of the total kWh entering that network. For the year ended March 2004, the national average "distribution loss" was 5.95%. Five years earlier, the national average was only 4.5% but 11 of the companies were recording substantially higher losses of 7% or more.

Electricity consumers can see loss ratios, and other network operating data, for each distribution company in its annual disclosures, as required under section 57 of the Commerce Act. These disclosures are available on company websites. Disclosures by Vector, Powerco, Orion and Unison, for example, show loss ratios for their 2003-04 years of 4.72%, 6.82%, 4.9% and 5.52% respectively.



## Peak Manager<sup>®</sup>

**Large electricity consumers on the Orion New Zealand network can manage their load and reduce costs during "control periods" by using Meridian Energy's Peak Manager<sup>®</sup> system.**

The system automatically responds to signals from the distribution company and reduces non-essential electricity usage. *Peak Manager* may shut down some equipment and restart it when the control period ends. It can also be

used to monitor, and respond to, a range of other load and/or time-based parameters.

Meridian Energy customises and programs *Peak Manager* software for each particular site, and works with the consumer's electricians while the necessary wiring is installed and the system is commissioned. Consumers need to purchase a *Peak Manager* unit and software licence.

Christchurch manufacturer Tyco Electronics Limited has used *Peak Manager* since April 2004

with substantial savings in electricity line charges. In the first winter, Tyco saw an effective 10% reduction overall in its electricity costs through load management during control periods. After four months, the company had recovered the initial cost of purchasing and installing *Peak Manager*.

For more information about *Peak Manager* contact your Meridian Energy Account Manager or call 0800 496 888, between 7.30am and 7.30pm, Monday to Friday, excluding public holidays.

# Line Charges

Line charges reflect network costs

Line charges reflect electricity distribution costs and the expectations of network companies for commercial return. The latter depend on company ownership and governance. Line charges also reflect a "price path threshold regime" managed by the Commerce Commission (see "Regulation" article).

Line charges vary widely between the 28 networks – and vary at different times of the day and year. It is generally accepted that network costs increase as electricity load increases, bringing with it a demand for additional network capacity. Accordingly, companies set higher prices for their distribution services at peak times.

The particular approach to pricing differs between companies. Orion New Zealand, for example, has laid out the following five key principles that guide its price setting:

- A rate of return appropriate to commercial risk in the business;
- Signals for customers on the costs of electricity delivery at different times of the day and of the year;
- Opportunities for customers to reduce their power costs significantly by reducing their consumption when distribution costs are high;
- No fixed per-day charge for distribution to individual consumers; and
- No differentiation between rural and urban consumers.

Orion New Zealand's current prices for distribution to residential and small business consumers in urban Christchurch – prices applied at grid exit points (see below) – are 4.39c per kWh on working week days year round, falling to 0.52c per kWh at night and on weekends. At peak times, the price rises to around 85c per kWh. (Peak times occur when network loading passes a certain threshold.)

Orion New Zealand's *Pricing Guide* states: "Charging high prices during peak periods encourages retailers to persuade their customers to reduce their electricity consumption during electrical 'rush hours'. This reduces the need for us to expand our network's capacity through the building of extra power lines."

Across the distribution sector, the Ministry of Economic Development found that commercial consumers' line charges fell in real terms over the five years ended in January 2004. For industrial consumers, charges were static or down marginally.

Under the price path threshold regime, companies are required to limit increases to those determined by the Commerce Commission (see "Regulation" article). The companies are also allowed to pass Transpower's transmission charges through to retailers and to consumers. In December 2005, the Commerce Commission announced

its intention to "declare control of Transpower's transmission services" after Transpower announced an average increase of 19% for 2006-07, on top of price increases in 2003-04 that the Commerce Commission considered were an unjustified breach of the relevant regulatory threshold. An interim agreement between Transpower and the Commerce Commission has been reached.

The network companies have two broad approaches to apportioning line charges among the different electricity retailers to which they provide distribution services. With "grid exit point pricing", individual retailers pay line charges on the basis of how much electricity runs through each exit point onto a distribution network, split according to that retailer's market share.

The alternative Individual Connection Point (ICP) pricing approach involves network companies calculating a charge for the distribution service received by individual consumers or classes of consumer. This requires data on electricity output from the network. This data is assembled in consultation with the retailers. The accuracy and timeliness of data reconciliation with ICP pricing are an ongoing issue.

## Case Study

Hospitals make peak time savings

Canterbury District Health Board (CDHB) will respond to Orion New Zealand's control period signals again this winter – and in the process, make substantial savings on its electricity bill.

As one of Orion's major customers, CDHB avoids high peak time line charging between 1 May and 31 August by switching to supply from its own diesel generators and by making reductions in its total power usage. The generators can deliver more than 85% of CDHB's normal electricity requirement, with seamless transition on and off mains supply from Orion.

CDHB estimates that responding to control period signals means a saving of around \$300,000 in the average winter. Supply from the generators is relatively expensive at around

23c per kWh but this is more than offset by savings that come from avoiding peak period lines and energy prices.

CDHB has invested in a building management system that controls electricity usage at all its sites and in plant to synchronise supply from generators at each hospital with mains supply. (The generators are already in place for stand-by supply in the event of a general blackout in Christchurch which, of course, could not be allowed to impact on hospital operations.)

The organisation has responded to every control period signal for the past three years at least and the resulting electricity cost savings represent a good return on the associated investment in the management system and generator synchronisation. Control periods vary widely

in their duration, and tend to occur during business hours or early evenings on cold days.

Orion provides 10 minutes' notice of its intention to declare a control period and the CDHB generators will switch on immediately as the period begins. Hospital staff and patients have no awareness of the change in supply or of other measures to reduce power usage through adjustment in some heating and chilling processes. CDHB must operate the generators within resource consents that limit exhaust and noise emissions.

The system benefits both the energy budget of CDHB and the security of electricity supply to households, offices and factories across north Canterbury.

# Regulation

## Protection against excess charging

Network companies are natural monopolies – and electricity consumers are protected against any excess charging through regulations administered by the Commerce Commission.

The companies are subject to a “price path threshold regime” on their prices and service quality. Breaches by a company can lead the Commission to investigate whether to impose price or other controls on it.

The regime, under Part 4A of the Commerce Act, constrains network companies within two sets of thresholds:

- A price path threshold which represents an annual change expected in the company's average price net of certain pass-through costs. The threshold is expressed in terms of Consumers Price Index (CPI) minus “x”, where the “x” factor varies from company to company, depending on its productivity performance and its prices relative to others; and
- A quality threshold, comprising criteria for service reliability and communication with consumers.

The Commission's objectives are to limit the ability of any company to extract excess profits; to provide strong incentives to improve efficiency and service quality; and to prompt companies to share efficiency gains with consumers, including lower prices.

The Commission regards the thresholds as a means of screening the companies and identifying which, if any, warrant examination and thereafter the imposition of controls. The regime was reviewed and confirmed in 2003, and the thresholds re-set from 1 April 2004. This was the beginning of the so-called “second control period” from 2004 to 2009 (there was an initial period under the regime from 2001 to 2004).

### “X” Factors

The Commission has allocated each company to one of four categories for “x” in the price path formula. Those with relatively low productivity and relatively high returns have a higher “x” factor (2%); companies with higher productivity and relatively higher returns have lower “x” values (1%). The higher the “x” factor, the less the company is able to increase prices.

Companies with a price path threshold of CPI –2% include Powerco and WEL Networks, while at the other end of the continuum, Northpower, OtagoNet and Waipa Networks have a threshold of CPI + 1%. Orion New Zealand has an “x” factor of 1%, and Vector and Unison Networks have 0% (ie. their average prices can rise at the rate of inflation). Electricity consumers can find the “x” factor for the distribution company in their area by viewing that company's disclosures, or the Commerce Commission's “Regulation of Electricity Lines Companies. Targeted Control Regime – Threshold Decisions” (April 2004), available on [www.comcom.govt.nz](http://www.comcom.govt.nz).

### Quality Indicators

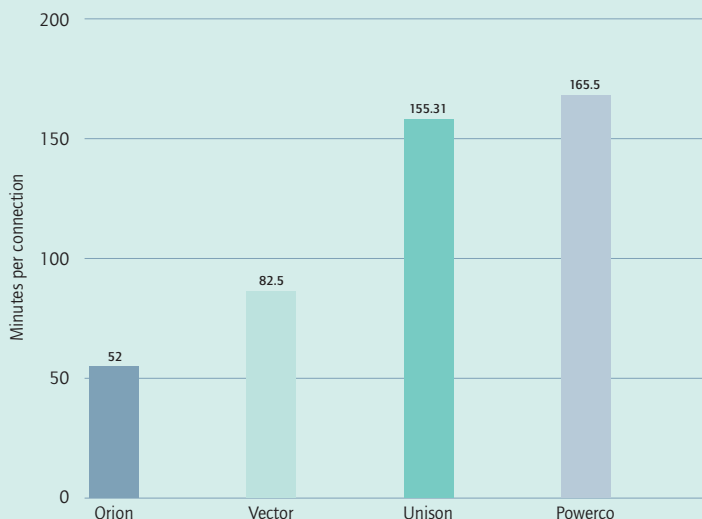
The quality thresholds require companies to prevent any material deterioration in their service as measured by standard industry indicators. These indicators are System Average Interruption Duration Index ‘SAIDI’, and System Average Interruption Frequency Index ‘SAIFI’. These are assessed annually (see charts below).

The other service quality threshold is a requirement that each company engage in meaningful dialogue with its consumers to determine their demand for service quality. Compliance with this threshold is assessed every two years.

Network companies are also subject to an information disclosure regime, administered by the Commission.

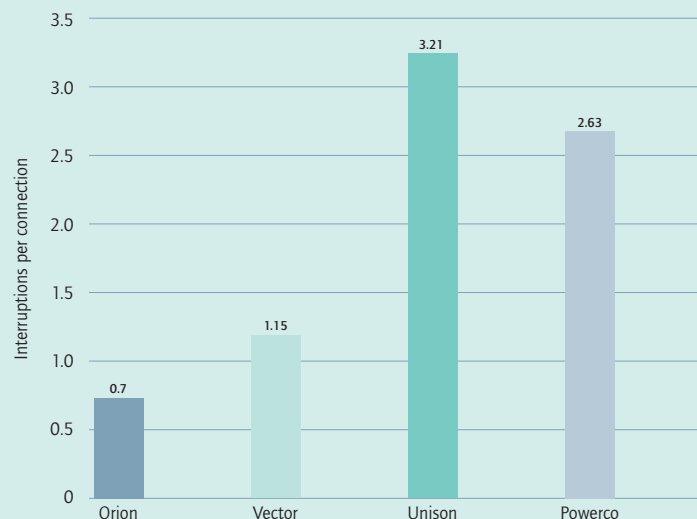
**Reliability of supply is especially critical for some electricity consumers. They can gain further assurance on this by investing in duplicate supply links from the appropriate network company and/or in on-site diesel generators. It is important to note that network reliability is beyond the responsibility of electricity retailers, including Meridian Energy.**

### SAIDI for 2004-05, Four Largest Network Companies



Note: SAIDI measures minutes of service lost per connection per year. All data for year to 31 March 2005, except Vector (year to 30 June 2005). Powerco excludes minutes lost due to extreme weather events (eg. tornado).

### SAIFI for 2004-05, Four Largest Network Companies



Note: SAIFI measures average number of interruptions per connection per year. All data for year to 31 March 2005, except Vector (year to 30 June 2005). Powerco excludes minutes lost due to extreme weather events (eg. tornado).

# Investment

## "Wall of wire" investment

The distribution sector requires substantial investment to replace aging assets and keep up with electricity demand growth. In this respect, New Zealand is part of a worldwide upswing in network capital expenditure – a so-called "wall of wire" over the next 20 years (see chart below).

Most of the poles, wires and transformers in use in this country today were installed between 1945 and 1985. In that era of the Rural Electricity Reticulation Council, consumers could demand to be connected to a distribution network as of right, regardless of their location. Over the past two decades, network building has generally slowed.

The Electricity Networks Association (ENA) says investment requirements vary widely throughout New Zealand and in the largest cities, networks are generally in robust shape. Nonetheless, ENA stated recently: "Securing the funds, the Resource Management approvals and personnel to rebuild aging assets is a pressing distribution industry problem."

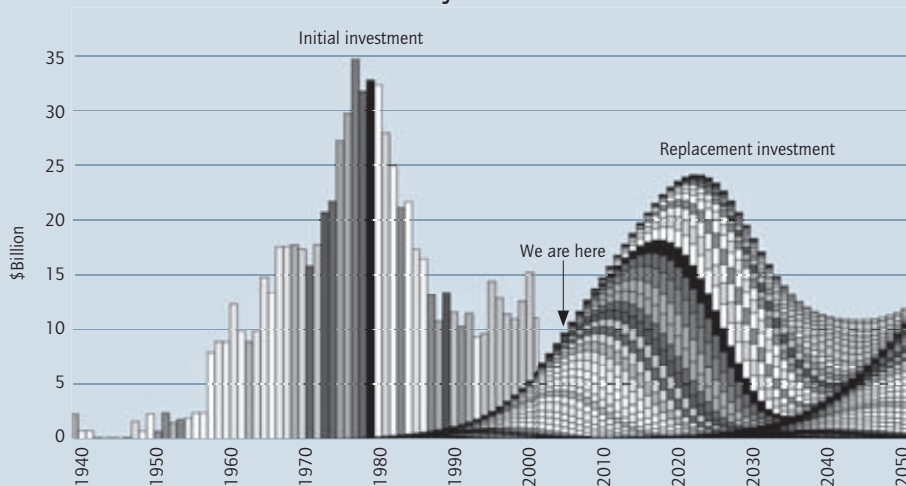
Many of the network companies currently have substantial capital expenditure programmes, prompted by the high growth they are experiencing in demand for connections and in electricity volumes.

Sector-wide requirements for additional capacity and for the replacement of aging assets were analysed in late 2003. The findings, included in a PricewaterhouseCoopers "infrastructure

stocktake" report to the government, put the total network investment requirement from 2004 to 2010 at between \$1.7 billion and \$2.5 billion (in 2004 dollar terms).

Within the distribution sector, there are concerns about the impact that the Commerce Commission's price threshold might have on network companies' profitability and their ability to undertake the necessary capital expenditure.

## Global Networks Investment Cycle



Source: Margaret Beardow, Benchmark Economics (Presentation to ENA, March 2005)

# Skills Gap in Distribution Sector

**Like other key areas of the New Zealand economy, electricity distribution is facing a substantial shortage of skilled technical staff.**

A recent report for the Electricity Supply Industry Training Organisation (ESITO) identifies a current "skills gap" of up to 767 technical trades-people across electricity generation, transmission and distribution. The relevant trades have attracted too few new entrants over the past 15 years or so, and many experienced people have been enticed away to work in electricity industries overseas. There are skill shortages worldwide.

This is the fourth such report prepared for ESITO, based on an analysis of planned capital and maintenance spending by distribution network companies, interviews with key industry members and a questionnaire completed by 400 employees.

The Management Research Centre has found that the overall skills gap may have closed slightly compared with 2004. However, the shortage remains acute in some areas, particularly among linesmen and cable jointers.

The analysis of network companies' asset management plans shows total spending on new assets and on asset maintenance is expected to reach \$613.2 million in 2006, with overhead lines accounting for 37% of this. The plans indicate that \$194.5 million of the total will go into sub stations, transformers and other switchgear. The annual spend is set to decline slightly over the years to 2010, before rising again thereafter.

More recently, network companies' investment has increased significantly and this has heightened the demand for skilled people. "A key concern is the possibility that not enough people are entering the industry to replace those who are leaving. This is critical because it takes so long to adequately train new entrants," the Management Research Centre report says.

Industry training programmes have moved up a gear in the past three years in response to the skill shortages. ESITO says there are now around 3,500 people in electricity sector technical training programmes, at least 15% more than in 2003. Around half of the current number are

in lines and cable jointing trades required by the distribution and transmission sectors.

ESITO says companies, including electricity generators and retailers, are giving increasing support to the modern apprenticeship scheme, which is the fastest growing area of training. There are now 345 modern apprentices, all new entrants to the electricity sector. Total employees in electricity generation, transmission and distribution companies, and in associated contracting organisations, are estimated at around 8,750.



# Business Online

*Business Online* made even more useful

Meridian Energy is making it easier for time-of-use customers to manage their electricity usage and spending amid all the variables which impact on these, including constraints on distribution networks.

*Business Online* has graphical tools for receiving and analysing information from Meridian Energy in relation to energy usage, demand, load duration, contract prices and billing. These tools are accessed on [www.meridianenergy.co.nz](http://www.meridianenergy.co.nz) through the use of login details and a password specific to each customer.

*Business Online* was launched in early 2005 and now has around 400 regular users. We asked customers who are regular users of *Business Online* what improvements they'd like to see to enhance the service – and five new features have been added as a result.

- **Latest monthly electricity financial and usage information** can now be viewed at *Business Online* and downloaded into your preferred graphing tool.

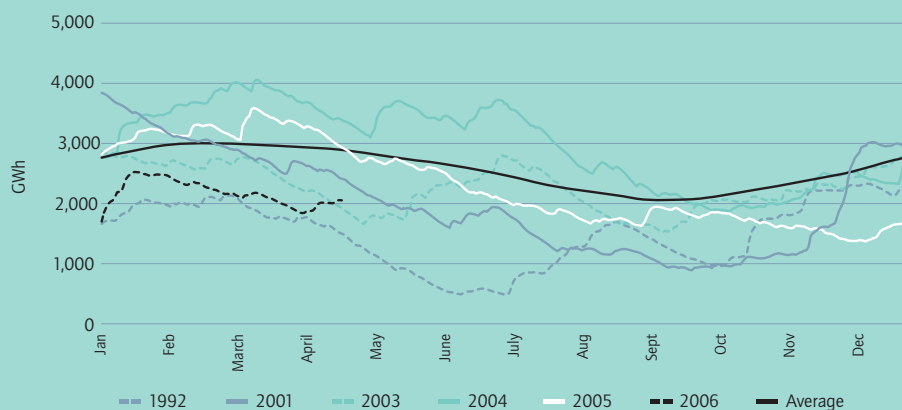
- **Email alert** will notify you when your latest monthly electricity financial and usage information is available for viewing at *Business Online* at the end of each billing period. You simply have to subscribe to enjoy this feature.
- **Your favourite graphs** can be saved for easier access each time you want to receive and analyse information in a standardised way that suits your particular needs.
- **Forgotten password** is a tool for choosing a new password and having it confirmed quickly by email from Meridian Energy.
- **My profile** is a tool for you to take even more control of how and when your password and other details are set up.

## Getting Started is Easy

To find out how *Business Online* can help your business make energy and cost savings, simply call your Meridian Energy Account Manager on 0800 496 888, between 7.30am and 7.30pm, Monday to Friday, or email us at [BusinessOnline@meridianenergy.co.nz](mailto:BusinessOnline@meridianenergy.co.nz).



## National Daily Hydro Storage – (see “Market” article)



Please note: Facts and figures in *Meridian Report* are from authoritative and publicly available sources. For further information on topics in this issue, see the following sources: [www.med.govt.nz](http://www.med.govt.nz), especially the Energy Data File July 2005; [www.comcom.govt.nz](http://www.comcom.govt.nz), under Industry Regulation/ Electricity; [www.ena.org.nz](http://www.ena.org.nz), the website of the Electricity Networks Association; and [www.esito.org.nz](http://www.esito.org.nz), the website of the Electrical Supply Industry Training Organisation (especially Industry Issues and Reports). See also disclosures on the websites of individual network companies. In particular, information has been sourced from the *Pricing Guide 2005* and *Network Quality Report 2005* of Orion New Zealand Limited, available on [www.oriongroup.co.nz](http://www.oriongroup.co.nz). *Meridian Report* acknowledges the value of information made publicly available by these entities, while noting that Meridian Energy cannot be responsible for ensuring the accuracy of such information.

**We value your feedback.** To get in touch please either call your Meridian Energy Account Manager on 0800 496 888 or email us at [meridianreport@meridianenergy.co.nz](mailto:meridianreport@meridianenergy.co.nz).

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# National Grid Upgrading

Investment in our national energy future?

Meridian Energy believes the nation must continue taking a long-term view on investment in the National Grid, in full recognition of its strategic value for maintaining security of supply, for enabling an efficient national electricity market and for promoting generation options into an uncertain future.

New Zealand needs a clearly stated, long-term plan for the maintenance and development of the Grid. This will give all interested parties – generators, retailers, distributors and electricity users, and also land owners, local communities and iwi affected by electricity projects – certainty in their positions today and in their planning for tomorrow.

Meridian Energy has produced a discussion paper on this topic. If you would like a copy, please email us at [meridianreport@meridianenergy.co.nz](mailto:meridianreport@meridianenergy.co.nz).

