Gasline 40

February 06

Electricity Commission to consider role for LPG in load displacement

The LPG Association has met with the Chair of the Electricity Commission, Roy Hemmingway, to discuss how LPG could contribute on a large scale to displacing electricity consumption through load shedding.

The LPGA was joined for the meeting by the Gas Association.

The two organisations briefed the Commission on the contribution they could make to electricity displacement, particularly in the north of the North Island and the South Island, and the issues that need to be addressed to ensure a useful degree of displacement could be achieved.

“It was a very positive meeting,” said new LPGA President, John Cumming, “and we have agreed to do some work together to progress this issue.”

LPGA Executive Director, Peter Gilbert, will be leading this project on behalf of both Associations. He will work with the EC’s office, which is keen to gather technical data to assess the viability of using gas on a wider scale and a load displacement option.

“LPG sales have jumped over 50% in the last five, and a significant proportion of that growth comes from the domestic market,” Peter said.

“We have always maintained LPG is a strategic energy asset that is being under-utilised – this is an excellent opportunity to assess how it could be used best to support NZ’s energy security, Kyoto and energy efficiency strategies.”

New Association executive elected

The LPG Association executive for the new financial year is John Cumming (president, NGC), Chris Mulvena (Shell Petroleum Mining), Owen Poole (Rockgas), Terry Barstead (Nova LPG), Mario Vulinovich (Shell Gas), Gregg Brown (AberGas), Ian Gallaughter (BBQ Factory), Ian Macefield (BOC Gases), David Browne (Gas Engineering Services), Albert de Geest (Liquigas), Mike Davis (On gas).

LPGA conference best yet

The 2005 LPGA conference at Taupo late last year was the most successful event yet, with over 100 delegates and a range of insightful papers presented (not to mention good fishing and golf!).

The industry’s conferences have expanded in numbers and value each year as the LPG industry itself has grown into a sizeable and strategic energy asset for New Zealand.

Key subjects covered included progress with HSNO, the Electricity Commission’s efforts to reduce demand through fuel efficiency, how NZ can develop a sustainable energy future and the role LPG might play in that, lessons from the United States LPG market and a strategic review of the future of forecourt LPG sales.

Already the conference has led to discussions at senior levels with Government officials on LPG’s role in the country’s energy supply sector.

If you did not attend the 2005 conference, ensure you don’t miss next year’s event, planning for which will get underway early in the new year in response to the size and status these conferences have attained.
Ministry's home heating report ranks gas options

The Ministry for the Environment has completed phase 1 of detailed study of heating options in New Zealand.

The report is part of the Ministry’s Warm Homes project which examines ways to encourage New Zealand households to move to cleaner heating sources and increase household energy efficiency. The overall aim is to develop warmer, healthier homes.

The phase one report focuses on a thorough review of the literature available on home heating, particularly the technical and financial aspects.

The social studies of heating choices and incentives for behaviour change will be handled in a separate report.

“We need to ensure the market has continued confidence in our products, understands how to use them wisely and efficiently and has access to good information at all times on these issues.”

Latter stages of the project will include the development of an Excel model to be used as the framework for evaluating different heating sources, a rating of home-heating types by selected criteria and case studies based on different areas of New Zealand, different household types and a range of heating patterns.

The phase one literature review examines a range of different fuel types and heating options, including flued and unflued gas.

It discusses each option under a variety of headings including availability, fuel/energy consumption, typical operating costs, heating capacity, effectiveness of heat transfer, particulate and greenhouse gas emissions, health and safety issues, typical capital costs and risks associated with use.

Key risks for gas options are listed as long term availability of supply and some perceived operating and safety issues.

LPGA Executive Director, Peter Gilbert, says findings such as these reinforce the importance of industry’s public awareness campaigns on security of gas supply and sensible handing and operation of gas appliance. “We need to ensure the market has continued confidence in our products, understands how to use them wisely and efficiently and has access to good information at all times on these issues.”

Peter noted, however, that the report stated ‘data from the Energy Safety Service shows a relatively low incidence (15-18pa) notifiable accidents for all natural gas and LPG applications, including home heating and other applications.’

“This underlines quite clearly just how reliable gas is when used sensibly.”

LPG appliances also rate extremely well in comparisons of particulate and sulphur emissions, and on par with most other fuels in terms of NOx outputs.

New CEO at Liquigas

Albert de Geest (right) has been appointed Chief Executive Officer of Liquigas. Prior to his appointment he worked as Manager, Electricity, at the Ministry of Economic Development, Resources and Networks Branch.

Albert has over 20 years experience in the electricity industry in Australia and New Zealand.

Previous positions include: General Manager of Marketing and Trading at Hydro Tasmania, General Manager Energy Procurement and National Sales at TransAlta New Zealand and General Manager Energy Brokers New Zealand Ltd.

He has been involved in the development of the New Zealand Electricity Market (NZEM) and has also served on numerous working groups, the Grid Security Committee and as Chair of the Rules Committee of the NZEM. Albert has a MBA (Distinction), Victoria University of Wellington, and other business and electrical degrees from Canterbury and Massey.
The LPG industry is being taken ever more seriously by officials and policy advisers in Government, says former Association President, Owen Poole.

Addressing the recent conference, Owen told delegates that industry is now starting to gain traction with our goal of positioning LPG as a strategic energy asset.

“The Association has worked hard this year to direct our relationship with Government and reinforce the value we are seen to offer as a sustainable energy source.”

He said the fact that transport officials are considering automotive LPG as a possible low-emission vehicle fuel is very positive.

And the Association is working on other fronts, which also look like bearing fruit, to promote non-automotive LPG to energy sector officials.

“This indicates industry is now being taken seriously on both fronts – albeit very late in the piece.”

Irrespective of the supply of indigenous LPG (and Kupe - and possibly Pohokura - will provide many years of security), the New Zealand market can access sustainable sources from a variety of locations, including the Australian east coast.

“This supply flexibility means the industry certainly does not face constraints and it is imperative that industry delivers this message strongly and regularly to all key stakeholders,” Owen said.

A second focus for the Association is continuing to promote itself to members and to increase membership numbers.

Doing so will strengthen industry’s advocacy position with Government and other stakeholders on a range of levels, and create additional value-added opportunities for the membership base, he said.

“The Association has made strong progress this year and I’m very confident it is well positioned to add even greater value in future.”

The following are excerpts from the report of the LPGA Executive Director, Peter Gilbert, to the industry conference.

One indication - at least in Wellington that an industry is considered a ‘player’ is the amount of time that industry’s association has to spend working with officials, policy advisers and regulators to protect and advance member’s commercial interests.

On that basis, the LPG industry has definitely reached new levels of credibility and recognition among energy sector officials - the much increased Government relations workload of the LPG Association over the last 12-18 months testifies to that.

In addition to this expanding workload is the changing nature of the

The Association is working to ensure Government, media and other influential stakeholders have a better understanding of the value LPG can offer in the current climate of fragile electricity supply and concern over New Zealand’s Kyoto response.
Driver’s League: A winning tool for Shell Gas

In 2004, Shell Gas made a commitment to achieve a significant improvement in Health and Safety performance. As part of this plan, a Driver’s League was introduced for the bulk carriers and distributors who deliver on behalf of Shell Gas. This Driver’s League incentivises drivers to exhibit the correct behaviours in areas including speed, personal protective equipment and daily vehicle checks.

As part of the commitment to ‘Walking to Talk’:
- Former General Manager Roland Pechtold personally launched the Driver’s League to drivers.
- HSSE manager, Bill Shand, visits the four involved businesses on a regular basis to educate drivers and to show a visible commitment from Shell Gas to their safety.
- Driver behaviour is tracked over each quarter, with achievers being rewarded with substantial bonuses.

Toolbox meetings are now held regularly by drivers with their managers.
- All drivers were issued a Shell Gas key ring for easy reference to what they “should and shouldn’t do”.
- Drivers receive a monthly message to go in their cab, which serves as a daily reminder of the monthly focus e.g. “Please observe speed limits at all times. Thanks for respecting the safety of yourself and others.”
- Drivers all receive a monthly newsletter with updates and recognition of achievers.

Although only recently launched, the Driver’s League is already showing results. There has been a noticeable increase in the number of reported potential incidents and a significant reduction in speeding.

“We’re not there yet,” says Bill Shand, “but this has been a real step forward.

“Attitudes take time to change, but the drivers are now starting to see for themselves the benefits of working safely.”

New gas heater is 92% efficient

A revolutionary new gas heater, which is 92% efficient, has just been launched in New Zealand.

The Archer Gas Log Space Heater is believed to be the most efficient appliance of its kind on the market, and has won numerous prestigious overseas awards.

Among its specialist features is the fact that, unlike other gas heaters which tend to dry out the air in the room, the Archer restores air humidity allowing the atmosphere in the home to remain fresh.

It uses a triple heat exchanger that extracts 92%+ heat from the incoming gas and transfers 78% of the heat directly into the home.

The heat exchange system squeezes the combustible gases to 55 degrees Celsius before they enter the flue. This results in total combustion and ensures every megajoule of gas energy is put to work heating the home.

The heater’s ignition system alleviates the need for pilot lights which means added reliability, safety and lower gas bills.

The heater’s innovative design means it can be installed safely against combustible materials without the added cost of installing a zero clearance box.

This helps to keep installation costs to a minimum and makes the heater ideal for high rise apartments or for use as a replacement for existing gas or oil space heaters.
Owen Poole recognised with award

Former LPGA President, Rockgas General Manager and long-time industry member, Owen Poole, has been presented with a life membership of the LPG Association.

Owen was invested with this honour at the recent conference in Taupo.

He was also presented with a journal of reminiscences from colleagues and workmates stretching back some 20 years.

Owen has been a major figure in the LPG industry and, in particular, the Association for most of the last two decades.

He has developed Rockgas from a virtually unknown player in the industry to its current position as one of its pre-eminent members.

He has also been a central figure in the Association.

He has led it as President on two occasions, has been a driving force in its strategic direction and achievements over the years and has assisted it to develop a recognised and credible voice in energy issue policy debates.

Owen will retire later this year but his legacy will be remembered.

LPG Association changes focus – cont. from page 3

work in which the Association is now more engaged. Whereas previously the emphasis was quite technical and operational, the LPGA is now also concentrating much more heavily on strategic and policy-oriented projects which have greater potential to impact on industry.

Supporting these projects has been ongoing work to review the Association’s communications activities, and to refocus them at a more strategic level.

This is consistent with industry objectives of positioning LPG as a strategic energy asset and, in line with this, the Association is working to ensure Government, media and other influential stakeholders have a better understanding of the value LPG can offer in the current climate of fragile electricity supply and concern over New Zealand’s Kyoto response.

A full copy of the LPGA annual report can be found on www.lpga.co.nz

Big projects on which the Association has worked this year include:

- Auditing and assessing the industry’s cylinder filling processes, and developing a complex workstream, in conjunction with the Environmental Risk Management Authority (ERMA), to remedy the issues identified in this audit.

- Ongoing work to change public misconceptions about the future security of LPG supplies. This involved a nationwide public information campaign, which will form the basis of continuing work aimed at consumers, officials and media.

- A major and successful initiative to overturn threatening provisions in Environment Canterbury’s draft Clean Air Plan. This was a delicate project which, if the LPGA had been unsuccessful, could have seriously affected LPG heater sales into Canterbury - and ultimately, further afield.

- Project managed four industry-Government committees whose terms of reference covered the strategic review of cabinet heater design and use, cylinder valve design and storage, use of LPG indoors and indoor air quality effects of LPG. These committees have far-reaching impacts on industry, for example.

- Facilitated a new process for compiling and analysing industry sales statistics, including providing monthly returns, a North/South Island split and the inclusion for the first time of statistics in the 45kg segment. This new process has greatly assisted marketing planning and demand forecasting.
Looking ahead to the upcoming energy policy programme in the current government term, a clear challenge is meeting New Zealand’s future energy needs in a way that protects our way of life, economy and the environment. More specifically, to advance an energy system over time that balances three high-level sustainable development outcomes:

1. Reliability and resilience, balanced against costs involved;
2. Environment responsibility (both locally and globally); and
3. Fair and efficient pricing.

To help us all concentrate our minds on these issues, we announced last year that we would develop a National Energy Strategy.

It is intended that this will provide long-term direction and leadership for the energy sector – and will put New Zealand firmly on the path to an energy system that supports sustainable economic development.

I would like now to outline some general guiding principles for the National Energy Strategy.

First, it needs to take a long-term view. Of course it is difficult to set energy policy over decades due to the uncertainty of future events and developments.

Instead the National Energy Strategy will involve exploring future energy scenarios, facilitating stakeholders’ views on possible transition paths, identifying key values/objectives and setting a long-term direction.

The strategy may develop a number of possible different transition paths and the role of government and market in each of these paths.

Second, the strategy will incorporate a system-wide view, covering both demand and supply and related policy areas such as climate change.

Security of supply of both stationary and transport fuels will remain a key priority and the Strategy will draw on various scenarios that explore New Zealand’s energy options.

We accept, of course, that some thermal power will be needed in our energy system for the foreseeable future, to allow for the vagaries of our weather that affect both hydro and wind generation.

The strategy will model the mix of generation types New Zealand has available. It will also assess the scope for reducing greenhouse gas emissions from changing the generation mix while maintaining acceptable thresholds of price and security.

Third, the Strategy will also give some thought to the impact of energy choices more broadly. For example, the potential impact of land use change from growing biofuel feed stocks on competing activities such as agriculture.

Fourth, the Strategy will integrate the aims of the National Energy Efficiency and Conservation Strategy. Where possible the National Energy Strategy will focus on cost-effective renewable sources of energy, to augment the renewable energy supplies – over 500 megawatts – that have come onstream over the past six years.

I am determined to maintain, and where possible increase, a high proportion of generation from renewable sources.

In addition the National Energy Strategy will address any outstanding barriers that might limit opportunities for energy efficiency improvements from smaller scale generation technologies or utilising local energy sources.

Cont. next page

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Work is already underway to explore whether there is a useful role for national guidance, under the RMA, on generation and electricity transmission.

Hand in hand with these studies will be an assessment of the related transmission, grid control and load management issues associated with various types of distributed generation, particularly where generator outputs vary markedly with time.

Fifth, the Strategy needs to continue to promote a favourable investment environment in the energy sector.

Businesses will be key players and central to promoting and promulgating sustainable energy practices, particularly through long-lived, energy efficient and emissions-reducing capital investments.

Sixth, the Strategy will also provide a long-term focus for energy R&D priorities and programmes and highlight where the potentials and roadblocks currently lie in respect of new energy technologies.

This is invaluable because timely access to new technologies and energy resources is not something about which this government can be indifferent.

I know that Energy Federation has been very active in developing an Energy Research Investment Strategy and I thank you for this valuable contribution.

Lastly, it is obvious that an enduring sustainable long-term vision will require strong energy sector/community buy in.

The development of the Strategy will require a robust, transparent process that encourages engagement with all interested parties.

A key role for government will be to facilitate process/debate and to ensure everyone has the opportunity to have their say.

A draft Strategy is likely to be available for wide consultation sometime in the second half of this year.

Of course the Strategy will not be the silver bullet, and it cannot provide the certainty of outcomes that we desire. Inherent unknowns include New Zealand’s future climate change obligations, the timing of a decline in oil reserves and availability of future technological developments. Nonetheless the development of the National Energy Strategy will aim to:

- Clarify government policy. There has been a growing need to pin down our policy in a number of areas and I look forward to progress in the development of that work.
- Integrate energy policy with related policy areas such as climate change.
- Highlight further development of existing policy where necessary.
- Identify where new cost-effective actions/initiatives may be required.

As you can no doubt appreciate the scope and scale of the work programme ahead is considerable. I would invite you all, as well as the wider community, to contribute to this important work.

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EECA is currently reviewing the National Energy Efficiency and Conservation Strategy, which was first, was introduced in 2001 under the Energy Efficiency and Conservation Act. The same Act provides for the minister to replace the strategy, if necessary, after five years.

The review begins with the assumption that it is likely the current EECA reviews energy efficiency strategy strategy can be improved. It is expected that the review of the NEECs will feed into the National Energy Strategy.

Since the Energy Efficiency strategy was introduced, for example, oil prices have risen and the Kyoto Protocol has come into force.

In New Zealand, Maui gas reserves have been redetermined, LNG imports have come under serious consideration and the Gas Industry Company has been established to co-regulate the industry.

Energy consumption has been growing steadily, at around 2% a year, and energy efficiency improvements are very modest compared with some other modern economies.

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EECA reviews strategy - cont.

Energy consumption has grown at around 2% a year, and energy efficiency improvements are very modest compared with some other modern economies.

In the face of changes and trends like these it makes sense to take stock of the current national strategy, to check on progress and make sure it meets our needs.

Energy efficiency and renewable energy are widely recognised as essential to a more sustainable energy system. New Zealand needs to ensure it has a clear path towards that future.

The current strategy sets two national targets: an improvement of at least 20% in economy-wide energy efficiency by 2012, and a 30 petajoule p.a. increase in renewable consumer energy by 2012.

To achieve these targets the strategy includes action plans for government (including local government), industry, transport, buildings and appliances, and energy supply.

EECA is now reviewing the strategy, looking at the progress that has been made, how other countries are tackling similar issues and where the current strategy could be improved. It will report to the minister, who will decide if the strategy should be replaced.

If a new draft strategy is required EECA expects to lead its development, seeking comment from a range of stakeholders including the energy industry. The draft would then be open for submissions in 2006.

For more information visit www.eeca.govt.nz. To be added to a contact list, email neecsreview@eeca.govt.nz

The USA LPG market: Some facts and figures

Randy Ervin, President of Algas-SDI in Seattle, recently provided the NZ industry with an overview of the interesting US LPG market.

With a population of 296 million and an LPG consumption of 75 billion litres per year, the US LPG industry contributes $12 billion to GDP.

This has to be put in context of a total energy consumption equivalent to 3.8 trillion litres of LPG pa.

LPG use in the US has increased six percent over the last 10 years. It provides four percent of the US’ total energy consumption, servicing five percent of households (6.8 million) where it is used primarily for heating.

There are also 450,000 LPG-powered forklifts, 270,000 autos and 80,000 buses, taxis and fleet vehicles.

Around 90 percent of LPG is produced domestically - roughly half from natural gas and half from petroleum.

Around 10 percent is imported from Canada via pipeline and railcar, and by sea from Algeria, Saudi Arabia, Venezuela, Norway, and the United Kingdom.

The propane industry has invested over $10 billion in transportation infrastructure and primary transportation is through 70,000 miles of pipeline.

This is supported by secondary transportation using 22,000 rail cars, 7000 bulk trucks, and 60 barges. Retail delivery is via 35,500 bobtail trucks.

There are roughly 8000 LPG retail companies with 25,000 retail outlets and 13,500 bulk plants.

They employ around 56,000 people who sell directly to 16 million end users – that’s around 1.35 million litres/employee per year.

US LPG prices often double through the course of a heating season.

Prices are driven by demand, storage, the need to import, and the cost of substitute energy sources. But the main factor is re-supply during peak season.

Prices in the west can be 50 percent higher than in the midwest and gulf coast areas.

Arrowtown gets 'mains gas'

Rockgas is now supplying reticulated ‘mains’ gas to Arrowtown businesses.

The reticulation was commissioned late last year to service Arrowtown’s CBD. The company expects over 30 Arrowtown businesses to convert to mains gas in due course, including tenants in the new Royal Oak development.

There are also longer term plans to extend the Arrowtown LPG reticulation network to residential gas users.

“Our reticulation service will encourage more local businesses to switch to gas because of its convenience,” Rockgas National Marketing Manager, Ross Cameron, said.

The Arrowtown project complements the company’s other reticulation networks, which, in the South Island Lakes District alone include services in Queenstown, Wanaka, Luggate, Lake Hayes and Walnut Grove, and Butel Park.

The company undertook the Arrowtown reticulation in conjunction with the Queenstown Lakes District Council as an extension of its long term infrastructure investment strategies in the South Island. Work started on the Arrowtown project in 2003.

A feature of the project was the ‘direct drilling’ method that Rockgas used wherever possible to lay gas pipes. This minimised street trenching work, greatly reducing disruptions and inconvenience to traffic and pedestrians.