

ULPG certification could be the answer for LPG appliances under TTMRA

A solution looks close to hand for the vexing issue of the Australians wanting to permanently ban all LPG appliances being sold into Australia under TTMRA.

TTMRA means that if a product can be provided in New Zealand it can also be sold in Australia.

However, because of technical differences between the Australian and New Zealand gas regimes, gas appliances are exempted from TTMRA provisions.

The solution so far has been to manage the situation on a 'temporary' basis by rolling over the exemption each three years in the hope a solution to the technical issues can be found.

This would avoid a permanent exemption being put in place, a situation that would create problems for appliance manufacturers.

This approach looks to have worked as, with changes looming to New Zealand's gas appliance regime next year, the Australians are happier now to at least include natural gas appliances within TTMRA.

Only one more roll-over period is needed, they say, just to address some last details, and then natural gas appliances will enjoy the full privileges of TTMRA inclusion.

Problems still exist for LPG appliances, however, because LPG fuel-mix specifications across the Tasman are different to ours. Australia uses propane-only appliances whereas New Zealand uses a mix of propane and butane.

So while the Australians are now happy to include natural gas appliances under TTMRA, they have been demanding a total and permanent exclusion for all LPG appliances.

They want this problem dealt with once and for all. No more roll-overs.

LPGA executive director, Peter Gilbert,



said a permanent exclusion would force additional costs on to LPG appliance manufacturers.

"Not only would it limit the ability of manufacturers to provide product in both jurisdictions, it would also entail extra testing and compliance processes to satisfy both the Australian and the proposed NZ compliance regimes."

Peter is hopeful the New Zealand industry has now found a solution.

"It's been a very vexing issue, but we're quietly confident we have made good progress on resolving it."

The solution, said Peter, is to test and certify appliances sold on both sides of

the Tasman to what's called universal LPG (UPLG).

ULPG appliances will be certified safe on both propane and butane. They can take a mix of fuels, which means they are appropriate for both sides of the Tasman.

All appliances certified compliant to ULPG will avoid the permanent exemption and join their natural gas cousins in one last three year roll-over.

"There are still some technical issues to resolve, but the goal is to have harmonisation with Australia for all gas appliances, including ULPG appliances, within three years," Peter said.

While the Australians are now happy to include natural gas appliances under TTMRA, they have been demanding a total and permanent exclusion for all LPG appliances.



Associations plan advocacy programme to lobby Government

The LPG and Gas Associations are mounting a joint advocacy programme to promote to the new government the benefits of fuel switching to direct use of gas.

LPG Association executive director, Peter Gilbert, said this is a perfect opportunity to place fuel switching on the policy agenda.

"The last government had a single focus on renewables; we hope this administration will be more interested in examining all the options and taking each on its merits.

"If that's the case, then the fuel switching argument has a lot going for it and should definitely be considered as a strategic energy asset."

Fuel switching makes a lot of sense – it's sensible to replace coal-fired generation with cleaner-burning gas plants, and it's sensible, for a variety of environmental and energy security reasons, to displace peak time electricity with direct use of gas.

Much of the energy policy argument these days is about building generation that creates the least greenhouse gas impact. While obviously a hugely important factor, the argument must be balanced with the imperative of energy security.

In this regard, New Zealand will benefit long-term from initiatives that reduce our peak electricity load. The question is, with what do we replace that load?

The simple answer is to use gas for applications where electricity is not essential – space and water heating and cooking.

Fuel switching is commonplace in the UK and throughout Europe. However, much work was done here by ECNZ in the 1990s to demonstrate that a similar approach was uneconomic in New Zealand.

Was that patch protection from the then state-owned electricity company?

Irrespective of ECNZ's motives, that mindset has had a long-lasting hangover.

"That's evidenced by the fact the fuel switching argument is hardly ever, if at all, raised in the wider debate about energy policy, and efforts to gain traction for this policy are usually met with polite disinterest," Peter said.

"That's why we're so keen to engage with Government to see what their views are and to gain a firm perspective on the way forward.

"One hopes they'll appreciate that fuel switching is one of the mechanisms that can be used to enhance energy efficiency, improve security of supply and reduce our carbon footprint."

Peter said transport is the other main area in which fuel switching should be encouraged. Together with electricity generation it's New Zealand's biggest CO₂ producing sector and therefore it needs to be addressed urgently.

Once a world leader in gas transport fuel technology, New Zealand has, admittedly, let that advantage slip away. But it could easily be reprised, especially as New Zealand has plenty of LPG to service a sizeable vehicle fleet and gas engine technology these days is extremely sophisticated and is used worldwide. The environmental impacts are such that most major car manufacturers, and many governments, use and promote gas vehicles to displace petrol and diesel variants.

Watch this space.

New executive member has vision for industry

Chief executive of Vapor Gas Equipment Limited, Nick Foster, is the newest member of the LPGA executive committee.

Nick joined the executive because he has a vision for the industry which he wants to see realised.

"I would like to help forward endeavours to ensure we have a more cohesive and collaborative industry," he said.

"At the moment it's a little bit fractionated, which is nobody's fault in particular. Rationalisation and consolidation within the industry have meant a bit of a loss of focus."

Nick would like to see a continuation of the association's lobbying efforts and a push to raise the industry's profile.

"It would be great to promote all the benefits we can offer, such as fuel switching and the direct use of gas.

"There are good technologies available now which the industry could make better use of, like some smaller liquid systems, which can be used in large domestic or small commercial operations."

Nick set up Vapor Gas, which specialises in liquid LPG systems and LPG vapourisers, in January 2005.

Prior to this Nick spent 12 years as New Zealand manager for System Control Engineering.

Test certifier regime under review

A review of the test certifier regime has been launched by the Ministry for the Environment, to assess its effectiveness and address any inefficiencies.

The regime, which was established under the HSNO Act, enables private market providers to carry out location, equipment and personnel assessments to ensure the safe management of hazardous substances.

Test certifiers are a critical element of HSNO management, but over the course of their introduction there have been some concerns about the viability of the regime.

Kathryn Holdsworth, a senior policy adviser for the Ministry for the Environment and project leader of the review, said the review is currently in an 'information gathering' phase.

"We want to get a sense of how many businesses require certification, whether there are enough test certifiers to meet current demand, and the compliance of industry."

Many former dangerous goods inspectors became test certifiers when the HSNO regime came into place. Kathryn said the review will look at how best to pass this knowledge on and whether there are enough new people becoming certifiers.

"People who want to become test certifiers need to have knowledge of the HSNO Act and practical experience under the supervision of an existing test certifier. Because

a lot of technical expertise is required, we are considering training requirements for existing and new test certifiers."

The review will also look at the consistency of test certifiers' decision making.

Industry is involved in the review in the form of a project advisory group, which includes representatives from BP, Air New Zealand, the New Zealand Chemical Industry Council, and the Employers and Manufacturers association, as well as test certifiers themselves.

The completion date for the review is 30 June 2009, but regular reports on progress and issues are provided to members of the advisory group and test certifiers.

"We will be releasing a discussion document in March, which will be widely circulated for consultation," said Kathryn.

LPGA executive director, Peter Gilbert, has welcomed the review.

"Addressing the inefficiencies and the viability of the regime is an area the association has advocated for a number of years. We hope the review addresses our concerns over accessibility to certifiers and the consistency of decision making."

Briefing to incoming minister advances benefits of fuel switching

The LPG Association has moved quickly to place fuel switching from electricity to direct use of gas onto the policy agenda of the new National Government.

In conjunction with the Gas Association, the LPGA has prepared a briefing to the incoming minister (Gerry Brownlee, pictured) in which the advantages of fuel switching are clearly outlined.

These include:

- Significantly reduced base and peak electricity demand
- Greatly increased diversity of energy supply
- Significantly enhanced energy security
- Greatly reduced stress on existing electricity generation, transmission and distribution systems
- Controls on/reductions of greenhouse gas emissions, and other emissions that have adverse health and local air quality impacts. This is particularly relevant where DUOG is used in the industrial sector to displace coal and LFO
- Increased energy efficiency deliverables
- Markedly improved consumer choice

LPG Association president, Albert de Geest, says it is positive that National has overturned the ban on thermal generation, a move which shows the Government understands the imperative of energy security.

"What we're saying to the minister is that we can also contribute to improving New Zealand's energy security while at the same time lessening considerably the demand for electricity and all without increasing CO₂ emissions.

"It's a win win outcome for the Government and one that also comes at no cost."

Albert said the briefing also endeavoured to re-ignite debate about encouraging use of gas transport fuels, another initiative that would reduce vehicle pollution while enhancing energy security and paving the way towards a transition to electric or hydrogen vehicles.

"We all agree with the ambition, which is to put cleaner burning vehicles on the road as soon as possible.

"However, while other technologies are still 20 odd years away, gas transport fuels offer immediate clean



air outcomes. So why not make full use of this cleaner-burning option in the meantime?"

The associations' BIM stressed the point that there is plenty of LPG and natural gas available to meet New Zealand's needs for years to come.

It also pointed out that international LPG prices are expected to drop in coming years which will benefit NZ users.

CONFERENCE 2008 HIGHLIGHTS

Did rain stop play?

Abergas general manager (business development and marketing), Ken Graham, believes the gas and LPG industry missed an opportunity to 'hit electricity for six' last winter.

Speaking to conference delegates, Ken said drought and power shortages provided an ideal opportunity to position the direct use of gas and LPG as a feasible solution.

"I went through TV3 news clips of the power shortage, which really highlighted the lack of attention gas is getting. High-profile reporters were giving messages that all the public needed to do was invest in heat pumps and turn off unused appliances. That's not a long-term strategy."

Ken said he was amazed to find the direct use of gas was not mentioned in the media in relation to the shortage.

"It was particularly surprising given the CAE report had just been released and a promotional pamphlet for the direct use of gas was ready for printing."

He said this would have been the perfect opportunity to promote the direct use of gas as a viable, long-term solution.

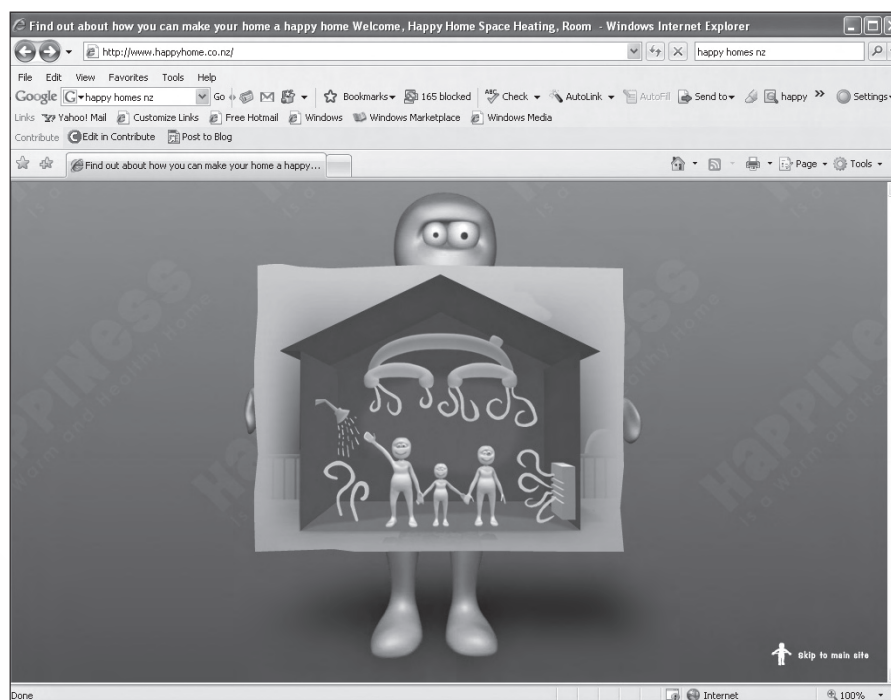
"Reporters and energy spokespeople talked about an energy crisis, but it was actually an electricity crisis. It was disappointing journalists didn't look at how gas could offset these problems."

Ken said everyone in the gas and LPG industry really needs to hammer the message home as the issue affects all concerned.

"We need to continue lobbying advisors and support our arguments with evidence. I also think we should get consumer organisations onboard, like Grey Power and the Citizens Advice Bureau. The old and the less well-off will struggle with increasing power costs and the threat of black-outs. We could use them as spokespeople to advocate for more reliable energy alternatives."

Aber has conducted ongoing research, using Colmar Brunton polls, to find out what people are doing to make their homes healthier.

The survey showed 62 percent may



Aber's Happy Home website was an integral part of the campaign

be considering improving the comfort and health conditions of their homes. When asked what they would like to do next winter to make their home warmer, more comfortable or healthier, 13 percent said they wanted to install a heat pump.

Ken estimates that a third of Kiwi homes will have heat pumps by 2010.

"Heat pumps would be a better solution if NZ's electricity supply infrastructure was designed for peak winter loads, but it isn't. Because heat pumps are still an electrical heating appliance, they go on at peak times, when people are home, with the oven, microwave and plasma TV on, and so they just add to peak demands."

He said the increase in heat pump sales, particularly through mass-advertising from the big retailers, has already had an effect on LPG appliance sales.

"We're struggling to be competitive, when it comes to running costs. If you take into account the cost of LPG cylinders, the price difference is marginal. It would be great if we could say LPG is not only more effective and

efficient, but cheaper too."

He said the change in government could be good news for gas and LPG.

"National says it's giving the tick to building energy efficient gas turbines for electricity generation. If that leads to extracting more gas from the ground then cost savings could be passed on to the end user."

Aber is helping to promote gas as a viable alternative through their Happy Home campaign, which provides consumers with different options to suit their circumstances.

"The campaign is ticking along nicely and has generated a lot of interest. Research showed we had twice the brand recall of Right House, the electricity equivalent, for about a fifth of the advertising spend."

"The response showed there is latent interest in the market place for understanding various energy products. There is a core group who want trained advisors to visit their homes and recommend the heating solution that's right for them, and Happy Home is ensuring it has the range of options available."

The golden weather has ended

That's the message delivered by Dominick Stephens, from Westpac Economics, to conference delegates.

"If anything, the last five years have been an odd period of really easy credit conditions, fuelled by rising asset prices. What we're now facing is not so much a short-term downturn as a return to normality."

Easy access to credit, on the back of rising house prices, has seen Kiwis spend more than they earn for a number of years. Dominick said that can't go on forever, particularly as we are now feeling the effects on an international credit crunch.

"The main thing we'll see is a lower New Zealand dollar, which is already in train, as well as difficulty accessing credit and weaker asset and commodity prices."

The October tax cuts saw a brief surge in consumer spending, but Dominick said that was short-lived.

"Being good Kiwis, we spent those cuts in August and September, before we even received them. Those cuts, combined with lower interest rates and falling fuel prices mean there was something of a consumer fillip for a brief period."

However, a falling exchange rate means petrol prices are not likely to drop much further and unemployment is set to rise.

Dominick said this should curb consumer spending considerably.

"Unemployment is a bit of a lagging

indicator and to date it has not been a huge issue. This is largely due to a shortage of labour, which has meant people who were laid-off could find work fairly quickly.

"By the end of 2009 those alternative job options will dry up and people will start hitting the dole queues instead of changing jobs. We expect the unemployment rate to hit 5.6 percent by next December."

All this should come as no real surprise to business owners, who Dominick said are well aware of how terrible the situation really is.

"A lot of businesses are noticing a downturn on the ground and most are concerned by what they see."

What does the future hold for LPG?

"Surpluses in supply of LPG will mean the price will fall relative to oil and other petrochemical products in order to clear the market," Liquigas chief executive and LPGA president, Albert de Geest, told conference delegates.



Historically, all of New Zealand's LPG was either supplied from Taranaki or imported from Australia. However, Albert said new production from Kupe, and possibly other fields, are likely to replace imports in the near future.

"We expect to import up to 90,000 tonnes per annum until the Kupe field begins production in 2009."

If the Pohokura partners decide to produce LPG Albert believes New Zealand will be an exporter for up to 10 years and, as a result, prices will fall to "export parity" i.e. the price of propane in Australia less the cost of shipping.

"On the other hand, if the Pohokura partners decide against producing LPG, the market will be balanced for a short time, but imports will be required in the long-term. This will mean prices will stay at, or close to, import parity."

He said the price differential between import and export parity could exceed 20 percent, which

will have a significant impact on the competitiveness of LPG as a fuel and on market growth.

Given that LPG is a by-product of oil refining and natural gas production, supply will ultimately depend on the production of these fuels, which Albert said is expected to increase.

"A predicted increase in global LNG production means LPG supply is expected to accelerate over the next five years by 3.5 percent per annum. It should reach about 272 million tonnes in 2012."

This is likely to generate large surpluses which will be increasingly diverted to the petrochemical sector.

Liquigas coordinates the overall supply and imports of LPG to ensure security of supply.

"As demand has grown rapidly and local supply has reduced and become more volatile, that task has become more complex and challenging."

CONFERENCE 2008 HIGHLIGHTS

LPG: an Australian perspective

The LPGA's Australian counterpart, LPG Australia, was represented at conference by chief executive Steve Woodward (pictured).

Steve gave an interesting presentation on the LPG situation in Australia, looking at trends in traditional and automotive sectors, future industry challenges and opportunities.

He also spoke about the issues arising for the industry this year, such as responses to climate change and the carbon pollution reduction scheme, and the LPG vehicle scheme, a federal government grants scheme for conversions. The scheme looked set to be scrapped this year, but was saved by an industry-led campaign that actively promoted autogas and thus preserved the government's financial support.

The campaign, which was paid for by industry contributions of \$AU2.5 million, was aimed at fleet, small business and private motorists. It included web and state promotion, PR activity and strategic partnerships.

The promotion centred around families with mortgages, living in outer suburbs who have poor access to public transport and long commutes, which result in higher transport costs.

Steve also looked at pricing trends and forecasts. He said



there were a number of challenges facing the industry, such as competitive pricing of electricity and natural gas, and government legislation and regulation.

However, these were offset by substantial opportunities for the industry, including lower infrastructure costs, abundant national reserves and excellent prospects for long term trade.

Kiwi homes: Cold, damp and draughty

Beacon Pathway is a collaborative research consortium. It looks at affordable ways to make New Zealand homes more resource-efficient, cheaper to run, healthier to live in and kinder to our environment.

Beacon's research team leader (energy), Verney Ryan, spoke at conference about what can be done with New Zealand's existing housing stock. He said research has shown that Kiwi housing is, on the whole, cold, damp and moldy, with very poor thermal performance.

A national value case for sustainable housing looked at a range of sustainable building interventions, including retrofitting insulation, efficient lighting, space and water heating and water metering.

These changes have the potential to reduce CO₂ emissions by 3600kt per year and save households around \$2 billion by 2017. Beacon's aim is to bring the vast majority (90 percent) of New Zealand homes to a high standard

of sustainability by 2012.

Verney said while villas, bungalows and state houses were good candidates for retrofits, Art Deco houses and 1960s multi-unit homes were more challenging.

A survey of three consumer groups – high energy users, recent home buyers and landlords – produced interesting (though slightly depressing) findings.

Of the high energy users surveyed, only 16 percent of homes were fully insulated and the majority had draughts. Nearly 50 percent used ineffective heating methods and the same number said their homes were not warm. Most of their renovations carried out were largely cosmetic (redecorating, kitchens and bathrooms) and their reasons for not retrofitting were costs and inconvenience.

Over three-quarters of the recent home buyers surveyed had only partially-insulated houses, with over half living in draughty conditions and almost

half using inefficient heating. Recent home buyers were more likely to make changes to address basic thermal efficiency, but were deterred because of costs and lack of knowledge. They also focused on new appliances rather than insulation.

The landlords group was found to have a strong focus on redecorating rather than retrofitting, although a third said they would consider it if asked by tenants. Over half of the homes were found to be draughty, 40 percent had no ceiling insulation and 80 percent had no underfloor insulation. Perhaps most depressing was the admission by one quarter of landlords that they would not retrofit their houses.

Verney said the key to improving house performance lies in redirecting current renovation expenditure from cosmetic and on to performance-oriented outcomes, and shifting spend from appliances (treating symptoms) on to the basics of improving the thermal envelope (solving the problem).