

# View of the gas customer

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## Abstract

Methanex New Zealand Ltd is the largest single user of gas in New Zealand. Methanex manufactures methanol at its Motunui and Waitara Valley plants in Taranaki. The New Zealand plants are world scale and together account for approximately 8% of world methanol production.

Natural gas is the principal feedstock for the manufacture of methanol. Accordingly it is important to the profitability of Methanex to have security of gas supply at reasonable prices. The Maui field has to date provided this and Methanex purchases most of its gas from this field under long-term take-or-pay contracts. These contracts are rapidly approaching their expiry dates and Methanex has for some time been seeking replacement gas supplies.

Long-term security of methanol supply is important both to Methanex and to Methanex' customers. At the end of 2001 Methanex signed an agreement with the North West Shelf gas participants in Western Australia for gas supply to a planned methanol facility, due onstream in 2005. This facility will provide long-term security of supply for Methanex' Asia Pacific market.

Methanex however remains keen to continue operating the New Zealand facilities for as long as it can. The key issue to realising this is gas availability. The levels of exploration have been insufficient to replace reserves and the primary field Maui is rapidly depleting. Greater levels of exploration activity are essential and Methanex welcomes the renewed enthusiasm in exploration in New Zealand. Methanex believes it continues to offer value to the New Zealand gas industry and looks forward to the future opportunities.

## Introduction

In the past two years we have seen a significant level of change in the New Zealand gas industry. We had the excitement of the Pohokura discovery, the demise of Fletcher Challenge Energy and more recently the unwelcome news of a substantial reduction in the Maui reserves estimate.

The major issue facing Methanex New Zealand remains one of gas availability and time is clearly running short. The majority of our contracted gas is from the Maui field and this gas is now at risk. This creates significant uncertainty as to the viability of our ongoing operations and events over the next 18 months will determine Methanex' future role in New Zealand.

## Methanex background

First, a brief introduction to Methanex. Methanex Corporation is the world's largest producer and marketer of methanol, with sales accounting for some 25 per cent of the world's market. Methanex is headquartered in Vancouver and has plants in New Zealand, Canada, the United States, Chile and Trinidad.

Methanex' New Zealand operations are a key part of Methanex' business and a key part of the global methanol market. Methanex consumes as much as 90PJ per annum of natural gas in the production of methanol at its Waitara Valley and Motunui plants in Taranaki. The capacity of the New Zealand plants at 2.4 million metric tonnes per annum represents 35 per cent of Methanex' total production capacity and 8 per cent of the total global methanol market.

Some 98 per cent of the New Zealand production is exported, primarily into South East Asia, North East Asia and the Middle East. The key markets in this region are Japan, Korea, Taiwan and China. The New Zealand facilities have underpinned our growth in the Asia-Pacific market where we hold a 23 per cent market share.

The New Zealand production capacity of 2.4 million metric tonnes per annum roughly equates to Methanex' share of the Asia Pacific market and the matching of regional supply and demand is of significant value to Methanex, with shipping costs comprising a significant portion of the total costs of the product.

## **Methanex Asia-Pacific strategy**

To consider Methanex New Zealand's requirements as a customer we have to look at Methanex' Asia-Pacific market requirements. Whilst methanol is a globally traded commodity the market for production from New Zealand is essentially the Asia-Pacific market.

Our key objective is to provide reliable methanol supply to our Asia-Pacific customer base at lowest cost. The New Zealand plants have met the bulk of our Asia-Pacific demand and we have built a healthy regional market share. Supply from New Zealand has earned a reputation of high and consistent quality and a high level of supply security. This in turn requires security of gas supply, high operating performance and reliable distribution. Security of supply is very important to our customers and having built this market share and reputation we intend to retain it.

We have recognised the looming gas shortfall in New Zealand for a number of years and we have examined a number of replacement options around the Asia-Pacific region. Just prior to Christmas we signed a contract with the North West Shelf Venture for gas supply to a planned methanol facility on the Burrup Peninsula in Western Australia. This plant is scheduled to be onstream in late 2005 and will be the world's largest methanol plant with a capacity of 2 million metric tonnes per annum.

This was a major decision for Methanex, with the cost of the Australian plant estimated at AUD 1 billion. It was however a logical move for Methanex to pursue the many growth opportunities in the Asia-Pacific region and to ensure supply security to our methanol customers in the region.

The Asia-Pacific methanol market has experienced strong growth over the past 10 years and we expect this to continue. It is estimated that the Asia Pacific region will grow by around 6 per cent per annum. By 2006, assuming Methanex maintains its market share, our production requirement for this region is estimated to be 3 million metric tonnes per annum. With Australia planned to provide 2 million metric tonnes this would require 1 million metric tonnes from elsewhere, and this increment would grow further over time.

We would ideally like to see New Zealand meet the 1 million metric tonnes per annum production requirement from late 2005 and, beyond this, to satisfy our regional growth in demand.

The North West Shelf of Australia is a great location for an Asia-Pacific production hub and we are very pleased with this outcome. Our preference for Australia as the location of our new production hub was driven by a combination of factors. These were gas price and security of supply, location to market, fiscal regime and political stability. In addition, both the State and Federal Government's provided support in the form of infrastructure development. The term of the gas supply contract is for 25 years and with abundant gas supplies the North West shelf provides a very long term proposition.

If we cannot secure the necessary gas in New Zealand then we have the ability to double the capacity of the Australian facility. Whilst the current gas supply outlook is bleak we are keen to remain in New Zealand and are optimistic that there is more gas to be found.

## **New Zealand gas supply/demand**

Since the construction of the Motunui facility in 1983, the methanol plants have represented the largest single user of gas in New Zealand. From 1983 to 2001 gas demand for methanol production comprised 40 per cent of the total gas market.

The past few years has seen an increase in gas use in the electricity sector and looking forward the bulk of growth in gas demand is expected to come from this sector. Methanex will however remain a significant portion of future gas demand.

On a total New Zealand gas supply/demand basis if Methanex operates at full capacity we estimate a supply shortfall would emerge from 2006. This takes account of the Maui sellers estimate of reduced Maui reserves (as stated in November 2001) and assumes Pohokura is onstream in 2005. This is, however, somewhat theoretical. We have to consider our contract position and our ability to secure new gas in the period to 2005.

## **Methanex' gas contract position**

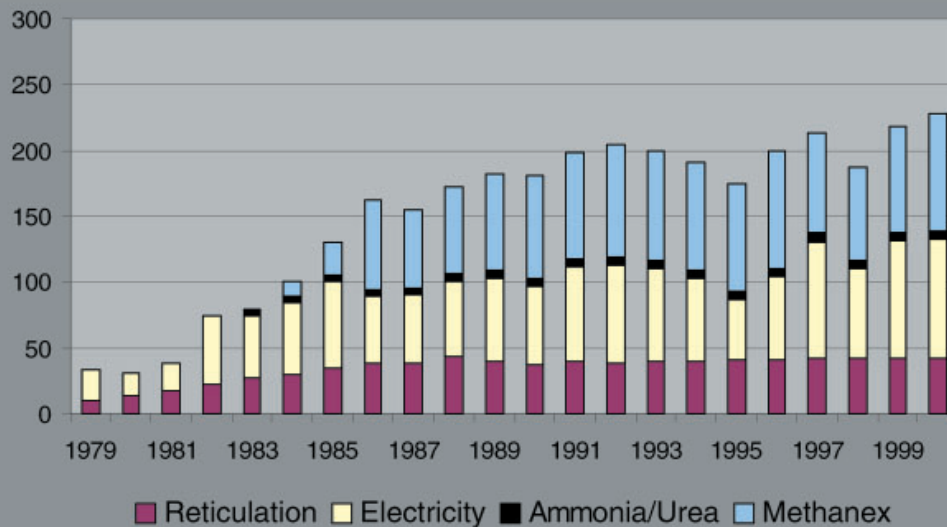
Methanex' gas needs have largely been met by Maui, under contracts directly with the Crown and purchases from the other Maui gas buyers, Contact Energy and NGC. The Crown Maui contracts expire in 2003 and 2005 and the Contact contract in 2007. If the methanol plants were operated at capacity our current gas entitlements would be consumed by 2005.

Maui gas comprises 80 per cent of our total gas entitlements and these entitlements are subject to reduction in the event of a reduction in Maui gas reserves. The Seller of Maui gas has recently estimated that Maui reserves are substantially less than previous estimates and has initiated the contract redetermination process.

This process requires the Crown and the Maui field owners to come up with a new reserves estimate, either by agreement or expert determination. This new reserves estimate will then be applied to alter the entitlements of the parties that purchase Maui gas from the Crown, namely Methanex, Contact Energy and NGC. For Methanex this has come at the 11<sup>th</sup> hour, and with our contracts due to expire earlier than the other Maui buyers any impact on Methanex will be that much more immediate.

Our immediate objective is to ensure we have sufficient gas to operate our plants through to the start-up of the Australian facility in late 2005. A few short months ago this seemed a mere formality but it is now somewhat more challenging.

## NZ Gas Demand by Sector - PJ/a



We recognise that in a supply constrained market we will be hard pressed to compete on price with the generation and reticulation markets. In competing for new supply Methanex is constrained by the need to remain competitive in the methanol market. Methanol is a highly competitive commodity market and we need access to competitively priced gas to ensure the economic viability of New Zealand production. There is no established methanol price hedging mechanisms and so we compete on cost with regions that have abundant gas supplies and an industry that on average is reducing its average cost base.

A reduction in Maui reserves is a major issue not only for the buyers and sellers of Maui but for the industry as a whole. It highlights the heavy reliance of the industry on Maui and the risks of a non-diversified gas supply position.

### Gas exploration in New Zealand

This brings me to talk about exploration for gas in New Zealand, or more particularly the lack of it.

We are told that we have one of the best exploration regimes in the world. New Zealand as an exploration destination is considered to compare very favourably on royalty and tax regimes, political and financial stability, ease of repatriation of profits, and more so now than ever before - good prospectivity. Certainly it offers one of the most favourable exploration destinations in terms of lifestyle. Why is it then that the level of exploration activity generally, and gas exploration in particular, has been so inadequate?

A good part of the answer to this lies in the industry structure. The dominance of the Maui field and the Maui contract has ensured that there was no opening for new gas. Discovering gas was not an economic proposition in a market fully satisfied, and effectively closed to new entrants, for the foreseeable future.

Exploration only happens if explorers are comfortable with the risk/reward equation. New Zealand has had a reputation for being gas prone and with a fully satisfied gas market it is not surprising that few companies have been attracted to New Zealand and even fewer interested in looking for gas. For those companies that have drilled here or have considered drilling here the lack of industry wide activity increases markedly the cost of exploration.

Explorers need to be confident that there is a profitable market for the gas. The market situation is changing rapidly with a looming gas supply shortfall and a likelihood of increased prices. Methanex would like to think that the changes in the gas market combined with the exploration successes of recent years will result in an increased level of activity and interest in exploring for gas. We haven't yet seen this and we need a dramatic increase in activity to realise a sustainable gas industry.

We are encouraged to see Preussag and Swift becoming established in New Zealand and pursuing further exploration opportunities. As a major gas user we want to see an active and competitive exploration and production sector. In this respect we had some concern at the take-over of Fletcher

Challenge Energy by Shell. FCE was by far the most active gas explorer in New Zealand and in a small market such as ours the elimination of a major player is of some concern to a gas buyer.

Whereas New Zealand was the major region for FCE's activities globally, it remains a small part of Shell's global activities and Shell New Zealand will have to compete for exploration dollars against numerous alternatives in other regions.

## **What value does Methanex bring to the New Zealand gas industry?**

We estimate that our gas use each year in New Zealand contributes roughly \$400 million in gas and associated liquids revenues to the industry. This is revenue that would otherwise be deferred some years down the track. We provide a significant base load demand that allows higher rates of gas and liquids production than would otherwise be possible.

In addition to this, our operations in Taranaki put an estimated \$40 million/a into the local economy and export earnings are in the order of \$800 million/a.

Approximately 25% of our annual gas take is gas that does not meet the national gas specification. The majority of this gas is high CO<sub>2</sub> Kapuni gas. This gas is blended with Maui gas to achieve a CO<sub>2</sub> content of between 16 to 18% in our process gas stream. This is a win/win arrangement in that it improves our process efficiency and it allows the sale of high CO<sub>2</sub> gas that would otherwise require costly removal of the CO<sub>2</sub> to be marketable.

We also currently purchase McKee and Mangahewa gas for use in our Motunui fuel gas system, which is able to accommodate gas outside the national specification. The Kapuni gas and McKee/Mangahewa gas streams are delivered via dedicated pipelines to our Faull Road mixing station. This is one benefit as a gas customer of being in close proximity to the producing fields.

It is exceedingly difficult to attract new industry to a region. We have witnessed many potential new industry projects come and go in areas that are trying to attract major gas users. The North West Shelf Venture has been trying to attract new industry for many years and if we proceed with our project it will become the only non-LNG petroleum based industry in that region.

We have recently completed an economic study of the benefits our project brings to Australia. These benefits are estimated to be an increase in GDP per annum of AUD 500 million, the development of a specialist workforce and accelerated upstream development. The loss of Methanex to New Zealand

is a mirror image of this analysis. It will mean a significant reduction in GDP, loss of jobs and specialised skills and deferment of exploration and development opportunities.

New Zealand already has major base load gas users in the form of the methanol plants. We believe they are worth retaining. With the three separate methanol plants we have the ability to operate at varying rates between 20 and 90 PJ per annum. Our continued presence will assist the industry to manage the gas supply/demand balance and this will be an important factor in creating a sustainable gas industry.

To consider the current outlook and conclude there is only enough gas to satisfy generation and reticulation demand is short-sighted and will do nothing to foster a sustainable industry. Reducing the already small market by 40% and then finding one or two medium sized fields would recreate a gas surplus and shut down exploration activity for a further period.

Methanex believes we should all be seeking to increase the size of the gas industry in New Zealand, with a greater level of exploration, development and increased demand. New Zealand is generally considered to be under-explored and we don't yet know what the potential is. From the level of exploration for gas that has occurred to date it can't be concluded that the New Zealand industry has insufficient gas to support the methanol plants.

## **Conclusion**

Methanex believes that it still offers good value opportunity to the New Zealand gas industry. The presence of the methanol plants with associated base load gas demand continue to provide the opportunity for accelerated monetisation of gas and liquids reserves. The plants are in excellent condition and could continue operating here for the next 20 years. New Zealand remains a good location to service the Asia-Pacific market and could operate effectively in tandem with Australia. We are keen to continue New Zealand operations for as long as possible.

The current outlook for gas is, however, less than promising and it will be challenging for Methanex to secure the gas it needs. Gas price is a key factor for Methanex and gas prices will inevitably increase as supply becomes constrained. We therefore need further discoveries of gas and to achieve this there needs to be a considerably greater level of exploration.

The rapidly approaching gas shortfall and increasing prices should logically result in increased exploration activity. Methanex believes that the industry should be looking to grow, with increased levels of exploration, development and gas use. The goal needs to be a sustainable gas industry and in this respect the demand potential that the methanol plants offer will assist in creating this.

## **Author**

BRUCE AITKEN is the senior vice president, Asia Pacific of Methanex Corporation and managing director of Methanex New Zealand Limited, a subsidiary of the Canadian based Methanex Corporation, the world's largest methanol producer. Mr Aitken graduated from Auckland University with a Bachelor of Commerce in 1974. In 1979 he joined Fletcher Challenge and held a variety of executive positions in that company until 1991, when he transferred to Fletcher Challenge's methanol business. During 1991-1992 he was located in Santiago, Chile occupying a position as executive director in Cape Horn Methanol, at that time a 100% Fletcher subsidiary. In 1993 he shifted to Vancouver, Canada as vice president, corporate development for the newly merged methanol businesses for Fletcher Challenge and Methanex. In 1996 he transferred back to New Zealand to take up the position of marketing director, Asia Pacific for Methanex. Bruce was appointed to his current position in December 1997.