

energyresources.org.nz energyskills.org.nz energymix.co.nz

PO Box 25259, Wellington 6140

POWERING A BETTER NEW ZEALAND TOGETHER

8 July 2024

Hon Simeon Brown Minister of Energy Parliament Buildings WELLINGTON 6011

via email: S.Brown@ministers.govt.nz

Dear Minister

Solutions to deliver energy affordability and security for consumers

You are progressing work on a range of energy security solutions through the Gas Security Response Working Group (the 'working group') and will be taking options to Cabinet. We thought it opportune to provide you our views on what we think could contribute to the most efficient and expedient solutions.¹

We need to protect and grow our natural gas reserves if we are to maintain energy affordability and security for consumers as we lower energy emissions. This means more natural gas exploration and appraisal activity, so that natural gas can continue to contribute to our diverse mix of energy sources, meet the needs of consumers and reduce the continued reliance on coal. Natural gas is widely acknowledged as required to 2050 and beyond and must be reliably supplied to prevent widespread and critical energy system problems.²³ But urgency is required.

A long-term solution for consumers is required...

While short-term tactical solutions are required, it will be the medium to long term strategic solutions that will best meet your government's objectives of a sectoral reset back to security, reliability and affordability of energy as the market delivers the energy transition. This requires the revitalisation of the natural gas market.

¹ This letter has also been sent to your officials to pass on to the working group.

As recently as 25 June (see: https://www.rnz.co.nz/news/business/520519/power-companies-focus-on-ways-to-keep-gas-supply-up), the Chief Executive of Meridian Energy, Neal Barclay was quoted as saying:

[&]quot;The electricity system would need gas for some time to provide the necessary back up of fuel to meet current and rising electricity demand."

The latest MBIE Electricity Demand and Generation Reference Scenario calls for 800 MW of new gas-fired peaking generation to be built from 2029 to be able to balance supply intermittency and peak period demand. This is quadruple the 200MW of end-of-life OCGT capacity assumed to be decommissioned over the same timeframe. All MBIE scenarios now align with industry and other experts who have gas fired peakers needed beyond 2050.

...but the solution will inevitably require government support to help manage risk

There is no escaping the Crown's role in creating the decline and now in accelerating the pace at which a solution can be found and ensuring it is long-lasting by providing a degree of risk management.

Your government's objectives can and will be solved through de-risking long-term gas supply arrangements between gas producers and electricity generators and/or major industrial gas users. Without sufficient domestic natural gas New Zealand will face significant economic costs through disruption to industry and de-industrialisation, combined with higher prices for domestic energy (including electricity) due to the alternative being a higher cost imported solution. That solution permanently links gas and electricity prices to the vagaries of the global market.

No new exploration is likely under current policy settings

Under the past neutral policy settings, the market solution to more gas demand was a pipeline of new exploration and appraisal and bilateral contracting of new gas. If gas purchase contracts of sufficient length were available, then natural gas suppliers would continue investment in new developments and sufficient natural gas would come to market to match supply to demand.

However, since 2018, two critical market preconditions no longer exist. First, all new exploration and appraisal is confined to existing permits and known fields. These are mature, approaching end-of-life. New field developments are unlikely under current settings. Second, to enter contracts, while producers will accept and manage the risk that customer fuel preferences may change over time, they need the confidence that adverse regulatory changes won't undermine their return on the upfront investment (commonly known as 'regulatory' or 'sovereign' risk). This risk is harder to price.⁴

Large natural gas consumers, such as large industrials and electricity generators, are prepared to enter arrangements of the required length (these need to be available for ten to fifteen years, with fifteen being optimal). However, natural gas sellers no longer have the medium to long term regulatory predictability necessary to give them the confidence required to make the initial investment for the given risks.

We welcome steps underway to rectify the first hurdle. However, we are yet to see steps that will sufficiently address the second. Arrangements need to reflect the risk that demand, particularly variable demand, will not be matched by new natural gas supply.

Solutions are available and have been used before

The Crown has created a risk to domestic supply and domestic demand for a necessary fuel. It is a risk to the economy. We believe the Crown should consider options to deliver

⁴ This would likely require extremely high prices, rendering any contract uneconomic for the demand-side, and making the objective of such a contract (to encourage new exploration and appraisal) unobtainable.

confidence to either or both supply and demand *domestically* before locking in higher priced international fuels. There are a range of ways for government to accelerate or support market solutions that are well known in the energy market, such as underwrites or guarantees, contracts, swaps and/or options.⁵

In 2004, under the Rt Hon. Helen Clark's premiership, the government agreed to share gas supply risk with Genesis Energy to assist it with the development of the e3p power station (known now as Huntly Unit 5). Without such a risk sharing agreement the project would not have proceeded.

Our preferred option is for the Crown to prioritise new natural gas exploration...

The most efficient means of covering the security of supply risk is some form of risk-reward arrangement. This would entail the government underwriting gas exploration and appraisal whereby the government takes part (or all) of the risk if natural gas should not be produced, while sharing some of the reward if it is.

This option is best because the sovereign risk from political interference in 2018 has left the industry unable to trust that policy settings of the day will remain in place while demand exists. With all producing fields in decline, the investment risk is now high and even with a clear need for natural gas, producers are reluctant to commit. Some government support is necessary to bridge the gap.

...but other options need to be considered

A second option is long term arrangements for offering back-up gas to the market on a more predictable basis. If the government's new policy announcements regarding changes to the Crown Minerals Act regime, and such arrangements as described above, *do not* produce sufficient natural gas cover, the government might wish to consider providing some form of surety to the demand-side to commit to term contracts that support upstream participants to undertake new exploration and appraisal activity.

Large natural gas users have also provided demand response to keep the lights on. Such flexibility has been an asset for the country's energy security and the government could play a role to retain them. For example, over the last three years, Methanex has played a role in freeing up natural gas in winter for power generation. Currently, Methanex's demand response tends to occur when circumstances allow or demand it, but the current reduced natural gas supply limits Methanex' ability to do so. It is expected that this and the next two winters will have similar demands for natural gas, and some have suggested that Methanex's demand response should become a structural feature of the natural gas-electricity sector.

A longer-term, more structural solution is to facilitate the long term continuity of commercial arrangements that allows gas to be offered into the market more

An underwrite, guarantee or hedge avoids direct funding (leaving funds free for other national priorities) and spreads risk over a multi-year period.

predictably by large natural gas users in ways that protect their production contracts and allows natural gas to flow to higher value uses. This could help overcome the short-notice scenarios that currently trigger demand response and reduce economic production from large users, such as Methanex, and others.

If all the above should fail...

A third-best option could see the government help facilitate a secure energy mix through winters and dry spells through imported (or other alternate) fuels. We would expect that investment in domestic natural gas production would be lower cost to consumers, effectively 'locking in' a New Zealand gas price. While imported and alternate fuels may become necessary if no domestic natural gas is available, we are unclear what the role for government would need to be.

...but the risks of supporting alternate fuels need to be carefully assessed...

This option comes with several pitfalls and is likely to be less economically beneficial for New Zealand than the others. Demand risk management products like LNG imports and alternate fuels are obviously inferior to domestically sourced natural gas but should be an option of last resort especially given recent indications from, for example, Meridian who publicly acknowledged LNG imports may become necessary.⁶

This option would detract from, rather than add to, economic growth. Importing gas could hasten the decline and exit of our natural gas industry and downstream industrial gas users, along with related jobs and income. Once LNG enters our domestic system, prices will be subject to international factors. Geopolitical threats and risks associated with the costs of any domestic infrastructure required for LNG storage and distribution would likely need to be considered and managed appropriately given it would be subject to the same policy uncertainty-related sovereign risk as new exploration.

...as should who bears the cost burden

We think that any cost involved with the Crown's involvement would fairly and most efficiently reflect the residual risk that the market is unable to meet because of past Crown decisions that have affected gas supply and investment.

If such arrangements are called upon, and costs materialise, consideration should also be given to where they may fall. New exploration and appraisal is expensive, flexible gas held on standby or stored has a higher cost, import facilities have a capital cost, while a consumer who gives up gas to a higher value customer needs to be compensated for the option value of having the diversion available and the opportunity cost.

Should the options held by the Crown be called upon, it may wish to consider who, in addition to itself, might reasonably bear those costs. In addition to holding the risk, it

Again, in the same report as footnote 1, Neal Barclay said that the significant curtailment of investment, driven largely by 2018 government policy settings, has meant that imports of LNG are now looking likely to be part of the solution to provide the peak back-up required for energy security.

could also be packaged in a way where it can be sold on and carried through a hedging contract.

Renewable gases

Regardless of which option is pursued, green gases are developing but face a range of scale, regulatory and commercial issues. It is important that regulations do not hinder or slow their development as they will all have roles to play albeit over a longer timeframe than is required to solve the immediate challenges faced by consumers.

Concluding comments

All options should be on the table, but guidance is needed for the working group as to the most appropriate mix of solutions and pathway for planning into the future. Arrangements between market participants, freely contracting among themselves, should be the preferred first best option. However, investors have disquiet about changing government priorities and continually shifting regulation.

The government's number one priority for the energy portfolio must be to keep the lights on and industry humming. In achieving this, the government plays a vital leadership and stewardship role to align incentives through regulatory and market settings and has an interest in the ongoing production of natural gas.

It is not too late to encourage further investment in New Zealand's natural gas industry, alongside continued investment in renewables and energy infrastructure. We believe that investment in natural gas exploration and appraisal will lead to more natural gas being made available. We encourage you, when considering the options you receive from the working group, to have particular regard to how, and for how long the government could be involved in helping manage the risks and obvious benefits with having natural gas underpin long-term energy affordability and security for all New Zealanders.

Yours sincerely

John Carnegie

Chief Executive

Energy Resources Aotearoa

cc: Hon Nicola Willis

Minister of Finance

Hon Shane Jones

Minister for Resources

Associate Minister of Energy