

**Submission
No 25**

**INQUIRY INTO THE SUPPLY AND COST OF GAS AND
LIQUID FUELS IN NEW SOUTH WALES**

Organisation: NSW Business Chamber

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27 December 2014

Chair
Select Committee on the supply and cost of gas and liquid fuels in New South Wales
Parliament House
Macquarie St
Sydney NSW 2000

Dear Chair,

Thank you for the opportunity to comment on the Select Committee on the supply and cost of natural gas in NSW.

The NSW Business Chamber is one of Australia's largest business support groups, helping around 30,000 businesses each year. Tracing its heritage back to the Sydney Chamber of Commerce founded in 1825 and the Chamber of Manufactures of NSW founded in 1885, the NSW Business Chamber works with thousands of businesses, from owner operators to large corporations, from product-based manufacturers to service provider enterprises. Operating through a network of offices in metropolitan and regional NSW, the NSW Business Chamber represents the needs of business at a local, State and Federal level, advocating on behalf of its members to create a better environment for industry.

Rising energy costs have placed and continue to place a significant burden on businesses in NSW. The September 2014 quarter results of the NSW Business Chamber's *Business Conditions Survey* shows that almost 35 per cent of business respondents cite electricity costs as having a "significant" or "very significant" impact on their business. In addition, 17 per cent of gas-using respondents cite gas costs as having a "significant" or "very significant" impact on their business.

This submission will focus primarily on issues relating to the supply and cost of gas. The reasons for this are twofold: we see the supply and cost of gas as a priority issue for NSW businesses and this is supported by our engagement with our members; and the NSW Government has policy responsibility for many of the issues being raised.

Nevertheless liquid fuel security remains an important issue for NSW as access to cost-effective transportation is an important requirement for many businesses. Liquid fuels are also used as a feedstock for some manufacturing processes.

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(a) the factors affecting the supply, demand and cost of natural gas and liquid fuels in New South Wales;

Moving to an export market will affect gas supply to NSW

It is well acknowledged that the commencement of Liquefied Natural Gas (LNG) export terminals in Queensland in 2015 will place upward pressure on gas prices in NSW and will also likely lead to a limitation in gas availability for NSW gas consumers in the short-to-medium term as supply is redirected towards export.

NSW currently imports around 95% of its gas from Victoria, South Australia and Queensland. This means that NSW gas users are deeply exposed to the developments in the eastern gas market.

Opening up the eastern gas market to export markets will place upward pressure on domestic gas prices across eastern Australia. Domestic gas prices in eastern Australia have traditionally been considerably lower than international prices, generally \$2.5 to \$4 per gigajoule (GJ). The introduction of LNG exports will see domestic gas prices move towards international prices as gas producers seek the highest price available for their supply. International prices range from around \$4 per GJ in the US, \$8 per GJ in Europe and \$12 per GJ in Japan.

Moving to export will also eventuate in a tight gas market in NSW. The LNG contracts will shift gas supply away from domestic use, leading to limitations in supply. NSW currently sources approximately 40% of its gas supply from the Cooper Basin and some coal seam gas (CSG) from Queensland. The Cooper Basin is now fully contracted to 2017, and around half of its supply is committed into Queensland thereafter. This leaves limited options for replacing current contracts into NSW other than indigenous CSG supply and supply from Victoria.

Victoria may have substantial un-contracted reserves, but there are limitations in the current capacity of infrastructure to process and transmit gas to NSW from Victoria. This means it is unlikely that NSW will be able to access the necessary level of extra supply needed in time to meet forecast demand. The lead times required for capacity augmentation would mean additional capacity would not come online until well after shortages have begun to occur. In addition, NSW will be competing against other states for this gas supply.

The combined result of these factors will mean significantly higher prices for NSW gas users as well as gas shortages.

NSW's regulatory environment has curtailed the development of NSW's gas supplies

NSW has been slow to develop its own CSG reserves when compared with Queensland. NSW's indigenous gas supply is currently primarily sourced from CSG production at Camden, which has been operating for more than 12 years.

In recent years there has been a lack of regulatory stability and certainty for the development of CSG in NSW, despite numerous project proponents. This issue is more fully explored in (e); however, the regulatory regime must be identified as a factor which has affected gas supply.

This is also likely to affect prices. In a report commissioned by the Australian Petroleum Production and Exploration Association (APPEA), ACIL Allen Consulting has modelled the implications for NSW of a 'CSG Freeze' scenario in which NSW CSG production does not expand beyond current levels. The modelling shows that in the 'CSG Freeze' scenario, wholesale gas prices will be between 25% and 32% higher in NSW by 2030.¹

Policy shifts towards lower emission power generation has affected gas supply and demand

It is projected that demand for gas-fired power generation will increase as Australia moves to a lower carbon economy. This will increase the level of demand for gas, and may have also contributed to encouraging additional gas production to some degree.

However, given recent changes in climate-related policies at the Federal level, as well as projected wholesale gas price increases, forecasters are uncertain whether this level of demand for gas-fired power generation will eventuate within this decade.

Australia is increasingly reliant on international markets for supply of liquid fuel

The closure of domestic refineries has increased Australia's reliance on imported crude and refined fuels for transport from around 60% in 2000 to over 90% today.² The Federal Government's Energy Green Paper

¹ ACIL Allen Consulting (2013) *NSW Coal Seam Gas: Potential Economic Significance of NSW Coal Seam Gas*, p. vi.

² Blackburn, J. (2014) *Australia's Liquid Fuel Security Part 2: A report for NRMA Motoring & Services*, p. 3.

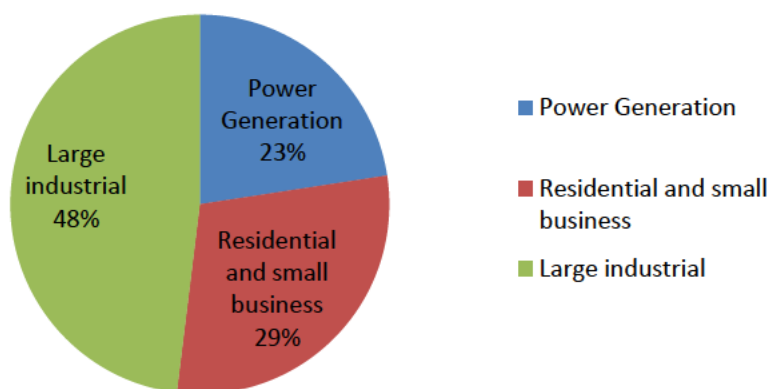
identifies the competitive disadvantage of Australian refineries, citing age, small size and labour and construction costs as factors. Fifty-three per cent of Australia’s product supply is now sourced from Singapore.³ Australian pricing for liquid fuels is derived from the Asia-Pacific market.

There are alternative fuels available in Australia such as liquefied petroleum gas (LPG), compressed natural gas (CNG) and biofuels such as ethanol. The Green Paper concludes that alternative fuels remain “niche products in Australia, supplying around five per cent of demand.”⁴

(b) the impact of tight supply and increasing cost of natural gas and liquid fuels on New South Wales consumers, including manufacturing, agriculture, energy production, small business, public services and household consumers;

Large industrial users are the biggest consumers of gas in NSW. The below diagram depicts the gas demand profile of the state:

Chart 1: NSW gas demand by customer segment



Source: AEMO data, Gas Statement of Opportunities 2013

Gas is used widely in the manufacturing sector, and is of particular importance to energy-intensive consumers in the manufacturing sector, as both an energy source and feedstock, including:

- metal product industries, such as aluminium (mainly smelting and refining activities);
- chemical industry (fertilisers, plastics, polymers, textiles and paints and dyes);

³ Australian Government (2014) *Energy Green Paper*, p. 52.

⁴ Australian Government (2014), p. 52.

- cement industry;
- pulp and paper industry;
- food and beverage manufacturing/processing; and
- pharmaceutical industry.

Gas is also used in manufacturing and commercial industries as a fuel source for cogeneration. Cogeneration is the combined production of heat energy and electricity from the same fuel source. Examples of cogeneration can be found in hotels, data centres, commercial offices and other industries which undertake food processing, and significant cleaning and washing. The heat energy produced is used to drive a turbine to produce electricity, instead of being wasted. Cogeneration is estimated to save between 10 and 30 per cent of the fuel which would be required to produce the same amount of electricity and heat energy separately.⁵

Viability of manufacturers will be challenged

While price increases and reduced availability of supply will impact across the NSW economy, these pressures will be felt especially hard by manufacturers. Given the manufacturing sector's position as the largest consumer of gas in NSW, higher gas prices will significantly impact on the sector's profitability and longer term sustainability within the state.

Manufacturing is the second largest contributor to the NSW economy. During 2011-12, manufacturing contributed more than \$34.2 billion to gross state product and employed 8.8% of the state's workforce.⁶ With the sector already facing tough economic conditions, increases to gas prices will inevitably cause manufacturers to consider the viability of future operations within NSW. This is especially the case for trade-exposed manufacturers.

A recent report released by the Grattan Institute states that rising gas prices could cost industrial users up to \$3.2 billion a year if they are unable to reduce their gas use.⁷

A report prepared for the Energy Users Association of Australia⁸ assessed different gas price scenarios, measuring their impact across high gas-using members, accounting for about 20% of total gas used in the

⁵ Essential Energy (accessed 17 December 2014)

<https://www.essentialenergy.com.au/content/education-natural-gas>

⁶ NSW Department of Education and Communities (2013) *Smart and Skilled: Industry Profile Manufacturing*

⁷ Grattan Institute (2013) *Getting Gas Right: Australia's Energy Challenge* p. 11.

⁸ EUAA (2014) *Scoping Study on the Economic Impact of High Gas Prices*.

industrial sector in Australia. The analysis demonstrated that under the “very high” scenario (\$10/GJ in 2014 increasing to \$14/GJ in 2023), by 2020 the industrial sector would see a loss of 3,300 jobs, foregone capital expenditure of \$1.9 billion and a decrease in sales revenue of \$2 billion.

The Chamber represents a significant number of businesses from the manufacturing sector across NSW. Many have conveyed their concerns about higher gas prices and the impacts which this will have on their business operations. We have identified a case study which illustrates the impact on individual businesses.

Case Study: Norske Skog

Norske Skog is based in Albury and supplies newsprint and paper. It is an emissions-intensive trade-exposed business. It employs more than 180 staff and supports up to 650 indirect jobs in the local region. It is estimated that Norske Skog contributes around \$100 million per annum to the local economy.

Norske Skog uses around 1 million GJ of gas per annum. The company’s retail contract expires in 2016, and initial engagement with the market suggests that they may be facing new contract prices at around double the current price, which is of significant concern to the business. This would mean a significant loss of \$5 million per annum which cannot be recovered from customers given Norske-Skog is a trade-exposed business.

Norske Skog is currently looking at ways to minimise the impact of higher gas prices, but there is no silver bullet solution. They are considering ways to increase the use of biofuel as a substitute for natural gas but will need to devote considerable resources to understanding and complying with environmental regulations covering the use of biofuels.

Norske Skog has actively participated in the NSW Government’s Energy Savings Scheme. It agrees that there is cause to widen the scope of this scheme to encompass all energy sources, rather than be only limited to electricity.

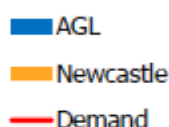
Businesses may find it hard to secure contracts

The significant changes in the eastern gas market combined with a level of uncertainty over the balance of gas availability is also likely to affect the ability of consumers to access gas under the long-term contracts which have historically been used. Suppliers have become less keen to commit

to long-term domestic supply contracts because of the current uncertainty about pricing and supply.

Many domestic long term wholesale contracts are expiring in the next few years, and the Bureau of Resources and Energy Economics (BREE) describes this problem as “particularly acute in New South Wales, where a large number of wholesale gas supply contracts are set to expire between 2014 and 2018. By 2018, less than 15 per cent of New South Wales’ demand will be met by existing contracts.”⁹ The below graph depicts the level of uncontracted demand:

Graph 1: NSW & ACT demand and contracted supply



Source: Santos (2013) A Balanced Energy Solution for NSW, p. 8.

As discussed in (a), businesses may find it hard to secure access to gas, let alone negotiate contracts, especially for a term and at a price which is viable for the business. Businesses have indicated that a long term known price path is important for business planning purposes. The forecast difficulty in securing contracts will contribute significantly to an already uncertain business environment.

⁹ BREE (2013), *Gas Market Report*, p. 17.

Electricity prices

Electricity prices may also be affected by a tight gas market. ACIL Allen Consulting also modelled for APPEA the impacts of a 'CSG freeze' scenario on electricity prices and found that wholesale electricity prices in NSW will be 3.5% higher on average over the period 2015 to 2030 than if NSW CSG production expands steadily to become the main source of gas supply in the state. This is the result of gas-fired power generation not reaching the forecast uptake level, with coal instead providing the fuel for power generation.¹⁰

Small Businesses

As far as the Chamber is aware, there has been little quantitative analysis of the impact of gas prices and shortages on the small business sector. However, for small businesses that use significant amounts of gas, it is likely to have a significant impact.

Small businesses that use significant amounts of gas include those that use it for heating (both space and hot water) and cooking, such as the restaurant and catering sector, accommodation sector, and dry cleaners. Around a third of small business gas users consume over three quarters of all the gas used by small businesses:

Graph 2: Average annual small business gas consumption (GJ)



Source: Grattan Institute (2014) Gas at the crossroads, p. 23

¹⁰ ACIL Allen Consulting (2013), iv.

The Grattan Institute found that for gas-intensive businesses a rapid cost increase will require a response. For example, a \$5 per gigajoule wholesale price increase will increase gas costs by \$2,500 for a dry-cleaning business using around 500 gigajoules a year.¹¹

The Grattan Institute concludes that while some cost pass through may be possible, these businesses will need to absorb a relatively large cost or take the decision to replace existing equipment.

In our engagement with members, the Chamber has found that small businesses often do not have the time, resources and skills on hand to research and identify energy efficient savings measures. They have also encountered difficulties in accessing finance for such projects. The Chamber agrees with the Grattan Institute that the capacity of small businesses to make assessments about future gas and electricity costs can be a difficult process, especially in the current uncertain environment.

(c) the commercial conduct of gas producers and the operation of the international and domestic gas markets;

International gas markets are evolving

There is no global market for gas but instead there is a set of regional markets that are separate but are becoming increasingly interlinked.

With LNG production in the offshore north and north-west of the country, as well as the development of three LNG terminals at Gladstone, Australia was expected to become the largest exporter of LNG by 2018.

However, the US has seen a significant growth in its domestic gas production, known as the shale gas revolution, and is looking to commence exports of this gas. According to BREE, the US market is changing global markets in ways that are yet to be fully understood.¹²

There have also been significant discoveries of gas in East Africa, and the world's current largest LNG producer, Qatar, is rapidly expanding its supplies.

The Asia-Pacific market has comparatively less indigenous gas resources, and therefore has a much higher reliance on LNG to meet its demand.

¹¹ Grattan Institute (2014) *Gas at the crossroads*, p. 23

¹² BREE (2013), p. 5.

Japan and Korea are both totally reliant on LNG imports and buy about half of the global LNG production.¹³ China and India are also expected to increase their demand for LNG. The demand in the Asia-Pacific market has been a strong driver for Australia's LNG production.

Given the growth of Australia's LNG industry, developments in international gas markets will become increasingly relevant for the Australian economy.

Domestic gas markets need continuing reform

Recent work being undertaken at the Federal level has considered the operation of the domestic gas market, specifically the east coast market. The Australian Energy Market Commission's (AEMC) Gas Market Scoping Study and the Federal Government's Eastern Australian Domestic Gas Market Study identified concerns about the lack of transparency in the market.

Gas in eastern Australia is predominately sold under medium to long term contracts, which are entered into on a bilateral basis between producers and retailers and other large users. Gas buyers also enter into gas transportation agreements with the owners of pipelines to deliver the gas to their delivery point, such as a distribution network or production facility. The widespread use of contracts provides greater certainty to producers and buyers.

However, these contracts are usually confidential and therefore limit gas pricing transparency. The AEMC found that limited price transparency around the details of gas supply agreements for those outside of the market may be contributing to concerns among some consumers, especially during this period of market transition.

The Energy Green Paper incorporated the findings of the Eastern Australian Domestic Gas Market Study and concluded there is a high possibility of information asymmetry within the gas market, as sellers have more market information available than buyers. The Green Paper states that:

Rising gas prices and supply uncertainties may cause sellers to delay executing supply contracts. Price outcomes could be

¹³ BREE (2013), p. 5.

*influenced by market power, making the adjustment to new prices more severe than necessary.*¹⁴

Some consumers have claimed that gas suppliers are failing to provide offers and conversely, retailers and producers claim this is not the case.

The Green Paper found that there was a lack of information available on gas production, creating uncertainty among market participants regarding the likely future availability of gas. This is making price discovery difficult and may influence negotiated price outcomes.

Overall there is a significant level of uncertainty about the extent of gas market competition, therefore the Green Paper proposed a review by the Australian Competition and Consumer Commission or the Productivity Commission.

The Chamber recommends that the NSW Government advocate for such a review through channels such as the Standing Council on Energy and Resources (SCER) to find viable ways to address the lack of price transparency to benefit gas users.

As the eastern market has matured and grown, there has been some emergence of shorter term contracts. A limited amount of trading also takes place on spot markets; however, this is primarily for the purpose of participants managing daily gas imbalances between expected and actual consumption.

Long term contracts are expected to continue to be a feature of the industry. AEMC concluded that a move towards the extensive use of short-term contracts and trading is unlikely to occur for some time.

(d) the adequacy of Commonwealth and State cooperation in gas market regulation;

CSG extraction is primarily a state responsibility. However, the Federal Government does have some scope to affect the development of a safe CSG industry in NSW.

The Chamber supports the Federal Government's initiative to streamline environmental and other approvals for resources projects, including CSG. This will remove duplication, ensuring timelier project approvals without sacrificing any elements of environmental protection.

¹⁴ Federal Government (2014) *Energy Green Paper*, p. 44.

Given that there is a lack of consistency between states' regulation of CSG mining, it would be more effective if governments moved towards a harmonised regulatory framework for CSG production. However, the Chamber appreciates that at this stage, one-size-fits all legislation may not be the best mechanism given states are at varying levels of industry maturity and community acceptance. It is of paramount importance that when developing their regulatory regime, governments bring along both industry and the community with them which in the meantime, may mean tailoring the regulatory regime to the distinct needs of each state.

In terms of the operation of the gas market, the Chamber supports Commonwealth and State cooperation in implementing reforms to the market to increase transparency as discussed in (c).

The recent Memorandum of Understanding (MOU) between the NSW and Northern Territory Governments demonstrates that there is scope for cooperation between states in ensuring an efficient gas supply market. However, it is important that investment decisions are not made on the assumption that gas delivered at any cost is a tenable solution for gas consumers.

(e) the possible regulatory responses to protect New South Wales gas consumers from adverse market fluctuations and failures;

NSW needs a robust and stable regulatory regime in place for CSG production

It is clear that the best policy solution to address higher prices and potential shortages is to further develop NSW's gas industry. It is estimated that there is almost 3,000 petajoules (PJ) of Economic Demonstrated Resources of CSG in NSW, and this is combined with a strong industry appetite to develop these reserves. In 2014, it is estimated that NSW's annual gas demand was approximately 133 PJ.¹⁵

NSW needs a robust regulatory regime to ensure that CSG is developed in a safe and environmentally sound manner. This is vital for the long term success of developing a CSG industry in NSW.

The CSG industry is one of the most regulated industries in NSW and is subject to the strictest CSG legislation in Australia. It is relevant to note

¹⁵ AEMO (2014) *National Gas Forecasting Report*, p. 27.

that the Camden Gas Project has been supplying five per cent of NSW's gas supply for 12 years without significant impact or incident.

The recent release of the NSW Gas Plan provides a much-needed step towards achieving greater regulatory certainty for the development of CSG in NSW, but there remains scope for the Government to further outline the action needed to avoid gas shortages and unnecessary price hikes before 2017.

The Gas Plan focuses on getting the regulatory setting right to develop a safe CSG industry, but current projects are unlikely to eventuate until 2018 at the earliest. The Government therefore needs a plan to address gas shortages which are likely to occur before then. This includes looking at demand-side opportunities to spread out demand peaks.

In terms of the Gas Plan itself, the Government has sensibly adopted all of the recommendations in NSW Chief Scientist Mary O'Kane's recent report on CSG which signals that the regulatory regime will have a scientific basis. The report makes clear that with the appropriate regulatory controls, a world-class CSG regime can be established in NSW.

The Chamber will continue to monitor the implementation of this Gas Plan. The proposal to release designated areas for CSG exploration could potentially provide greater certainty for businesses and the community, but we would encourage the Government to implement a transparent assessment process based on scientific evidence that fosters the safe development of the State's abundant gas supplies regardless of its location.

The Government needs to ensure that the proposed licencing scheme does not quarantine low-cost CSG reserves, as higher development costs are likely to slow down the delivery of additional gas supplies needed to ensure the future competitiveness of NSW industry and protect jobs.

Gas reservation is not feasible

The Chamber does not support the use of reservation policies. Reservation policies distort the market and may make CSG projects less viable, thereby providing a disincentive for industry to proceed with projects which would suppress gas supply. The Western Australian experience has shown a reservation policy does not guarantee sustained lower prices for gas users. The policy forced prices down in the short term, which then discouraged producers from developing new gas fields,

leading to little competition in the gas market and eventual constraints to supply.

In addition, to implement a reservation policy in the east coast market would require agreement from the gas producing states which would likely be difficult to achieve.

The best policy to keep downwards pressure on prices is to increase supply as quickly as possible. With exposure to the international market irreversible, the need now is to increase supply to counter the impact on prices and supply.

Implement national gas market reforms to improve transparency

As discussed in (c), there is scope to reform markets to improve transparency and better equip businesses with greater information to respond to price signals. We would encourage the NSW Government to advocate these reforms through SCER.

Well-targeted policies could help business adapt to higher prices

Despite the efforts to encourage CSG production in NSW, it is more or less inevitable that businesses will need to adapt to higher prices. While this is not indicative of a market failure, to ensure economic impacts are minimised governments should assess policy mechanisms which may enable businesses to adapt to significant price hikes.

These policies could include targeted energy efficiency information tools and project grants or loans; assistance with assessing alternative energy sources and ensuring there are no barriers to strong competition in the retail gas market, especially in regional areas.

The Chamber is a member of the Australian Alliance to Save Energy which is seeking to develop a roadmap to double Australia's energy productivity by 2030. This will include examining measures to enhance gas efficiency and increase the productivity of the gas sector. The NSW Government should continue its engagement with this initiative.

(f) the impact of closures of liquid fuel refineries and storages in New South Wales; and

Given Australia's strong competition from Asian refineries, it is unsurprising that refineries are closing across Australia. There is unlikely to be any significant price impacts of the closures given that Australia has been subject to global prices for oil and refined products for some time.

The real issue is ensuring that NSW has access to diversified supplies of oil and refined products to ensure security of supply. Australia must ensure that it has adequate and cost-effective liquid fuel supply arrangements in place to ensure the risk of regional disruptions does not inhibit Australia's access to liquid fuels. However, it also important that these measures do not add unwarranted costs to consumers.

In addition, governments should continue to encourage the development of cost-effective alternative sources of domestic supply while also looking at viable demand-side measures to increase the efficiency of fuel use.

Conclusion

Thank you for the opportunity to comment on this inquiry. Please contact Larissa Cassidy via or or if you have any further questions.

Yours sincerely,

Paul Orton
Director, Policy and Advocacy