

**Submission  
No 9**

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

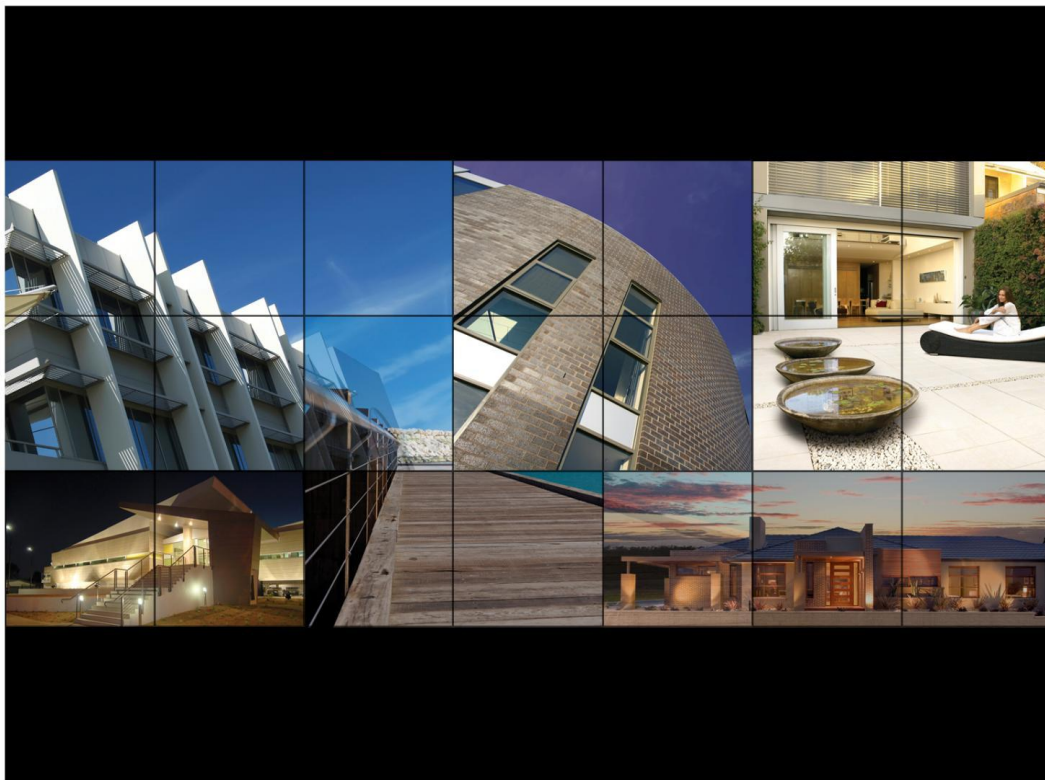
**Organisation:** Brickworks

**Date received:** 23/12/2014

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**Submission to the Legislative Council  
Select Committee Inquiry into the supply and cost of  
gas and liquid fuels in New South Wales**

**December 2014**



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## Executive Summary

Brickworks Limited welcomes the opportunity to provide a submission to the Legislative Council Select Committee Inquiry into the supply and cost of gas and liquid fuels in New South Wales.

Brickworks is an innovative group of Australian-owned companies and is one of the nation's largest manufacturing groups. Its primary business is the manufacture and distribution of clay and concrete building products, particularly bricks.

The building products manufacturing process is extremely energy intensive. The majority of Brickworks' factories are major users of natural gas for kiln firing. Despite ongoing improvements in the energy efficiency of its operations, Brickworks' business is still very exposed to the supply issues in the NSW natural gas market, as well as Australia-wide.

Increasing supply in the NSW natural gas market is critical. In addition to opening up coal seam gas (CSG) fields, Brickworks has identified a number of key issues that would help address constrained supply in the NSW natural gas market:

- Encouraging competition and new market entrants
- Amending licencing arrangements
- Facilitating pricing transparency
- Streamlining the regulation of testing, transmission and use of alternate fuels

The production, transmission and distribution of natural gas does not naturally lend itself to competition as it is a capital-intensive process, and gas is very challenging to transport, especially over long distances. As such, there are issues in the NSW gas market that could be improved upon with effective government policy. There are also barriers to entry enabled by the government, such as the current licencing system in NSW and the freeze on CSG exploration.

The NSW natural gas market would undoubtedly benefit from more competition and pricing transparency. A trading hub and futures market would enable consumers to make informed decisions when entering supply agreements.

Petroleum exploration and production licencing arrangements in NSW are a barrier to entry in the market, creating a situation that could lead to anti-competitive behaviour. The system makes it possible for licence holders to maintain tenure over a potential source of natural gas for more than two decades, with renewal possible at the discretion of the Minister.

Additionally, Brickworks faces a regulatory bottleneck on the testing, transmission and use of alternative fuels in NSW, despite their successful implementation in other jurisdictions. A streamlined regulatory regime for the testing, transmission and use of alternative fuels would enable Brickworks to continue to invest in energy efficiency innovation to secure the firm's long-term energy sustainability, as well as alleviate demand-side pressure on the natural gas market.

Brickworks is seeking an outcome that results in increased supply and more competition in the NSW natural gas market, and a more efficient regulatory approvals process for the testing and use of alternative fuels.

## Recommendations

1. Brickworks recommends removing impediments on developing new gas resources such as the hold on exploration and extraction of CSG in NSW.
2. Brickworks recommends improving competition in the NSW natural gas market through tax incentives.
3. Brickworks recommends the introduction of a 'use it or lose it' system for petroleum licencing in NSW under the *Petroleum (Onshore) Act 1991*.
4. Brickworks recommends the establishment of a liquid trading hub and natural gas futures market in NSW.
5. Brickworks recommends the introduction of a 'one stop shop' regulatory framework for the testing, transmission and use of alternative fuels in NSW.

## About Brickworks

Brickworks is an innovative group of Australian-owned companies and is one of the nation's largest manufacturing groups. Its primary business is the manufacture and distribution of clay and concrete building products, particularly bricks.

The company's heritage dates back 103 years, although Brickworks itself was formed in 1934 by brick-makers across Sydney. Today Brickworks is a publicly listed company which is 44 per cent-owned by investment house Washington H. Soul Pattinson.

In addition to bricks, Brickworks manufactures roof tiles, masonry and precast, and also operates saw mills. Brickworks' current brands within the Australian market are:

- Austral Bricks;
- Austral Masonry;
- Auswest Timbers;
- Bristle Roofing; and
- Austral Precast.

Brickworks has in excess of 40 factories across Australia (see map at Appendix 1) and more than 1400 employees. Its annual turnover is approximately \$600 million, with a market cap of \$2.1 billion.

The building products manufacturing process is extremely energy intensive; all of Brickworks' factories are major users of natural gas for kiln firing.

Natural gas supply issues and growing prices have prompted Brickworks to expand its existing research and development capability to find alternative energy sources and energy efficiency methods. The resulting product and process innovations have allowed Brickworks to reduce its energy consumption and greenhouse gas emissions by over 30 percent in the last 10 years around the country.

Despite Brickworks' achievements in energy efficiency through alternative sources, the firm still faces major regulatory impediments to the testing, transmission and use of alternative fuels in NSW.

While Brickworks is seeking these alternatives to natural gas through innovation in order to reduce its exposure to the poorly functioning NSW gas market, gas remains its primary source of energy.

Strong growth in the price of gas due to high international demand and constrained supply in the NSW market make it increasingly difficult for Brickworks to operate its business in NSW efficiently.

Brickworks welcomes this inquiry into the constrained supply and cost of natural gas in NSW and is seeking an outcome that results in increased supply and more competition in the market, and an improved regulatory regime for alternative fuels.

## Natural gas supply shortfall

Australia's abundance of natural resources and in particular energy has historically contributed to its strong manufacturing base. However, high international demand for natural gas and Australia's rapid response to export our resources to meet this demand has resulted in shortfalls for domestic gas users, especially on the east coast. This has the potential to significantly affect the viability of Brickworks' business.

The analysis presented in figure one below shows how much natural gas prices increased between 2008 and 2013, compared to increases in the price of electricity over the same period. In NSW, the price of gas rose by 79 per cent compared to 74 per cent for electricity.

Figure 1. The

	State data indexed to 100 in FY2008					Average
	QLD	NSW	VIC	SA	WA	
<b>Gas Costs</b>						
Gas Price FY2008 (\$/GJ)	100	100	100	100	100	4.7
Gas Price FY2013 (\$/GJ)	198	179	180	178	270	9.4
Gas Price Increase	98%	79%	80%	78%	170%	99%
<b>Electricity Costs</b>						
Electricity Price FY2008 (\$/MW Hour)	100	100	100	100	100	84.6
Electricity Price FY2013 (\$/MW Hour)	169	174	187	156	163	142.6
Gas Price Increase	69%	74%	87%	56%	63%	69%

Modelling of the Australian gas market in the Eastern Australian Domestic Gas Market Study published by the Bureau of Resources and Energy Economics suggests that gas prices will reach liquefied natural gas (LNG) netback over the coming years, however Brickworks believes this may have already occurred.

As well as price rises, Australia's appetite to export natural gas resources has resulted in local users unable to secure long term gas contracts. As an example, Brickworks has struggled to secure two to three year gas contracts, whilst Japan, China and Korea are able to secure 20 year contracts from Australian producers.

Regulatory settings such as the moratorium on CSG production add to the supply constraints created by the overseas export market. It is clear that natural gas supply is constrained and becoming more so. In order to increase supply, improving competition and the operation of the market in NSW is necessary.

### **Recommendation 1 – Remove regulatory impediments to new gas resources**

Brickworks recommends removing impediments on developing new gas resources such as the hold on exploration and extraction of CSG in NSW.

## **Increasing supply in the New South Wales gas market**

Increasing the supply of natural gas in NSW can be achieved by encouraging competition and improving the operation of the market, in addition to unfreezing the state moratorium on CSG.

More competition in the NSW gas market would facilitate an environment where there is stronger motivation to produce enough natural gas to meet local demand, encourage new entrants and deliver better outcomes for consumers.

Amending the current licencing system is also an important step to bringing on more natural gas supply. Ideally, new entrants must be able to easily enter the market; however long-term tenure over gas resources obstructs potential new producers.

Another critical component of adequate supply is pricing transparency. A liquid trading hub and futures market would ensure natural gas pricing is driven by the market and expectations of future production, supply and demand.

A competitive, efficiently functioning market is critical to ensure the supply of natural gas in NSW meets demand, now and into the future.

### **1. Encouraging competition and new market entrants**

The production, transmission and distribution of natural gas does not naturally lend itself to competition, as it is a capital-intensive process and gas is very challenging to transport, especially over long distances. As such, there are issues within the NSW gas market that could be improved upon with effective government policy.

To overcome the high up front capital cost barrier, tax incentives could be introduced for smaller and new operators across all segments – production, transmission and distribution – of the natural gas supply chain. Encouraging smaller organisations into the market, even if they only operate on one segment, would benefit consumers by offering greater choice and more competitive pricing.

Additionally, disallowing CSG exploration artificially restricts supply and discourages new entrants, especially those from overseas with significant experience in unconventional extraction methods. Removing the current freeze on CSG exploration is necessary to increase the natural gas supply in NSW.

Improving competition and encouraging new entrants in the market will help create a more stable natural gas supply in NSW, increased volumes, savings to consumers and long-term market functionality in NSW.

### ***Recommendation 2 – Encouraging competition***

Brickworks recommends improving competition in the NSW natural gas market through tax incentives.

## **2. Amending licencing arrangements**

As they currently stand, petroleum exploration and production licencing arrangements in NSW are a barrier to entry in the market. The licencing system, governed by the *Petroleum (Onshore) Act 1991 (Petroleum Act)*, allows for long-term exploration and production title to be granted over blocks of land, excluding prospective new entrants from the market.

Under the *Petroleum Act*, the term of an initial exploration or assessment title may not exceed six years. However, in order to advance to the production phase, for which a licence of up to 21 years is required, an applicant must already have held a production lease or assessment lease. Therefore, before production can commence, title must be held for as long as six years.

Though not all titles granted are necessarily this long and there is scope for faster turnaround from exploration to production, the system makes it possible for licence holders to maintain tenure over a potential source of natural gas for more than two decades, with renewal possible at the discretion of the Minister.

This situation, coupled with long-term growth in the cost of energy worldwide, creates a strong incentive for licence holders to indefinitely delay production, as the hydrocarbons for which they hold exclusive rights have the potential to be more valuable at a later time if world demand and prices continue to grow.

Long-term title over natural gas resources also creates a significant barrier to entry in the market, especially for smaller, newer organisations that may be willing and able to produce at a lower cost and on a smaller scale than other larger participants with tenure. More operators in the market would stimulate supply and deliver desirable competitive conditions for consumers.

In order to address this situation, a ‘use it or lose it’ licencing system is an option available that would encourage the production of hydrocarbons – a vital input into the broader economy – at a level sufficient to meet domestic demand without being driven by the current or future expectations of the world price. It would also encourage smaller, non LNG export companies into the supply mix

### ***Recommendation 3 – Use it or lose it licencing provisions***

Brickworks recommends the introduction of a ‘use it or lose it’ system for petroleum licencing in NSW under the *Petroleum (Onshore) Act 1991*.



### **3. Facilitating pricing transparency**

Prices in the NSW natural gas market would benefit from enhanced transparency and a strong indication of long-term pricing expectations. At present, there is not enough information available in the market to provide consumers with an accurate idea of the market price of natural gas at any given time.

The information asymmetry makes it difficult for even a large natural gas consumer like Brickworks to make an informed decision when accepting quoted prices for long-term supply contracts. The majority of supply contracts are confidential and undertaken bilaterally between parties along the production, transmission and distribution supply chain.

Under these conditions, price gouging is possible and inflated pricing offers of up to 25 per cent for contract renewals are not unheard of. In the absence of a market-based mechanism to accurately price natural gas, consumers are exposed to possible anti-competitive behaviour and are unable to respond.

Publicly available information about the price of natural gas is necessary to address this failure in the market. A liquid trading hub with spot pricing for natural gas, operating in a similar way to oil markets, would allow consumers to make market-driven decisions and encourage competition. New entrants would also potentially be encouraged into the market through the availability of accurate pricing information; firms are drawn to competitive markets by the potential for profits, and the pricing information would facilitate the development of business cases.

A natural gas futures market, similar to the operation of any other derivatives market, would be the ideal mechanism to accurately estimate longer-term gas prices and would enable consumers on long-term contracts to make informed decisions on fair, market-driven pricing.

Overall, the effect of transparent pricing would be a more efficiently functioning market and increased natural gas supply in NSW.

#### ***Recommendation 4 – Liquid trading hub and futures market***

Brickworks recommends the establishment of a liquid trading hub and natural gas futures market in NSW.

## **Removing regulatory impediments to the use of alternative fuels**

For several decades Brickworks has invested extensively in innovation and research and development to improve its energy efficiency. The resulting product and process innovations have allowed Brickworks to reduce its energy consumption and greenhouse gas emissions by over 40 percent in the last 10 years around the country. Brickworks continues to prioritise innovation and energy efficiency in its operations Australia-wide.

However, Brickworks remains hampered by regulatory impediments to the testing, transmission and use of alternative fuels. The testing and approval process can involve engagement with various divisions of the NSW Environmental Protection Agency, local council and sometimes the Department of Planning.

Brickworks also frequently faces situations where it is unable to conduct alternative fuel trials or receive approval to transmit alternative fuels through existing pipeline infrastructure. This is despite the success of alternative fuels at Brickworks facilities in other regions.

The primary alternative fuel sources used by Brickworks are organic waste derived products, landfill biogas and biomass. With some of these alternate fuel sources, the fuel is site specific and must be transported to Brickworks facilities. It should be possible to transmit the gas through available capacity on existing infrastructure. If gas pipelines are not fully utilised, then Brickworks should be able to use them to transport synthetic gas to its sites.

In an environment of tightly constrained natural gas supply in NSW, it is vital that Brickworks is able to use alternative fuels, not only as a cost saving, but also to fill the gap from the under supply of gas in the market and secure long-term energy sustainability for the business.

The testing and subsequent use of compliant alternative fuels should be a simple and easy process for energy intensive businesses that are attempting to innovate for energy efficiency while simultaneously delivering environmental benefits. The regulatory burden in this case is more than just counter-productive, it punishes businesses that bring their own solutions to energy and environmental challenges rather than lean on government for assistance and direction.

As such, Brickworks asks that the committee consider a one stop shop for testing and approvals in order to streamline the existing regulatory burden across jurisdictions and allow industry to deliver energy efficiency and improved environmental outcomes.

This is especially important considering the supply pressures in the NSW gas market.

### ***Recommendation 5 – Streamlined regulatory framework for alternative fuels***

Brickworks recommends the introduction of a 'one stop shop' regulatory framework for the testing, transmission and use of alternative fuels in NSW.

# Appendix 1

Location map of Brickworks' Australia-wide operations.

