

## Gaining a global gas advantage

Published by [\*Business Spectator\*](#), Monday 17 June 2013

A global gas revolution is underway, creating winners and losers on a grand scale. Australian gas producers and consumers are at the head of both lists.

The scale of change is matched by the heat of debate that is taking place in Australia, and by the political challenges that accompany the change. Grattan Institute's new report, ***Getting gas right: Australia's energy challenge***, explains the nature of the gas revolution, what it means for Australia, and what Australian governments and businesses must do to ensure our gas market survives and thrives through and beyond what the International Energy Agency has described as "the golden age of gas".

Demand for natural gas has been rising strongly for a decade or more. The forces behind it are economic growth in Asia, above all, but also more recently Japan's decision to shut down nuclear power plants after the Fukushima accident in 2011.

Growing demand has led to gas prices in Asia as high as \$15 a gigajoule, and has sparked a rush to extract and export more liquefied natural gas (LNG) from Western Australia and to create a new east coast export industry of LNG made from coal seam gas. The latter, which has the same chemistry as conventional gas but comes from different geological strata and is harder to extract, will feed liquefaction and export facilities near Gladstone, where the first LNG carrier to carry export gas will dock next year.

Other global shifts are transforming the gas industry, especially in the United States. In about 2008, gas prices had risen alarmingly as conventional reserves were depleting, and several companies, including BHP Billiton, were looking to import LNG. Then, as they usually do, markets worked. New extraction technologies led to the rapid development of the United States' shale gas resource. US domestic prices plummeted to about \$2 a gigajoule. Gas has even replaced coal as the fuel of choice for electricity generation in the US, which has helped the country's greenhouse gas emissions to fall. At the same time, low domestic prices are encouraging US companies to seek to export LNG into the same markets targeted by Australian competitors.

That is a potential challenge for a rapidly growing Australian export industry built on a projected \$160 billion in investment, and anticipated earnings to rival those of iron ore and coal. LNG is expected to generate more than \$50 billion in revenue by 2017-18, when Australia could match Qatar as the largest gas exporter in the world.

The growth in Australia's gas exports will impact the domestic market. The east coast gas market has not been linked to global markets before, and at \$2 to \$4 a gigajoule, its prices have been generally stable and low by today's regional standards. With international linkage, producers across the domestic market will now look to export parity as the new benchmark for their prices as existing contracts are renegotiated and new ones established. This could mean domestic price increases over the next few years of as much as 100 per cent in some cases, a very unpalatable prospect.

The response from Australian gas consuming industries has been predictably strong, although people within them differ widely as to what might be done. So far, there have been proposals to reserve a proportion of gas for domestic demand, to fund a rebate for local industries or to set a domestic gas price. Yet all these proposals are forms of industry protection and should be rejected. History shows that such protection measures lead to distorted price signals, inefficient industries, lower investment and ultimately higher prices.

We need globally competitive businesses. Australian LNG exporters will need to lift their game against new competition from the US, Canada and Africa. Australia's gas-consuming manufacturers will have to do the same.

A further challenge arises from the scale of change that comes with the gas revolution and rising Australian export levels. Within five years, total gas production in Australia will increase from around 2000 to more than 5000 petajoules a year. The LNG exports from Queensland will be the first time in the world such developments have been based on coal seam gas, and thousands of coal seam gas wells will be required. The scale of build-up is considerable.

Major gas wholesale customers, including retailers, have reported real difficulties securing supply contracts through the next three to five years. A winter supply shortage in New South Wales by 2017 is possible. This can be avoided, but it requires higher prices, additional investments such as increasing the pipeline capacity from Victoria, or resolving the coal seam gas impasse in New South Wales. There are commercial solutions, but they require the commercial parties to do the deals. All the answers take time and time is running out.

The Australian gas market is relatively immature in its levels of transparency and liquidity compared to either the US gas market or even our own electricity market. A major reason is that large, new gas infrastructure (gas fields, pipelines and LNG facilities) usually need to be underpinned by long-term contracts. With so much of Australia's gas infrastructure being new or in development, such contracts will be a foundation of our domestic market for many years. Yet as the physical market matures, so should the commercial market. Gas customers and their industry associations are right to call for greater transparency in pricing and for trading pipeline capacity. And arguments to move away from the authorisation of joint marketing (where partners in a gas development are allowed to join as a single entity in selling their gas) will become more compelling. Governments have a central role to play in keeping the market transparent and able to respond efficiently to changing circumstances.

Price increases and supply constraints are not the only looming changes. Gas-fired generation meets close to 20 per cent of Australia's electricity demand. It had been expected that, with a price on carbon, we would see a greater switch to gas, as has happened in the US. This has not been the case and will not be so for the next decade or so. The reasons are a combination of falling electricity demand, a renewable energy target that forces new renewable energy supply into an over-supplied market and the increasing cost of gas.

The world has more than 200 years of gas at current levels of consumption. Australia's reserves would meet around 70 years of current demand, without including projected LNG increases or the potential for shale gas development. There is plenty of gas. The challenge for Australian governments and industry is to realise the benefits of this bounty while ensuring that our domestic gas market is able to grow and prosper through a time of transformation.

*Tony Wood is the Energy Program Director at Grattan Institute*

[www.grattan.edu.au](http://www.grattan.edu.au)