

Natural Gas Price Caps in Australia are Poor Policy and may be Permanent

BY KELLY NEILL

The Australian government has imposed a price cap on natural gas, which may become permanent. Australia exports most of its natural gas, and extremely high international prices caused by the market turmoil in Europe are feeding through to high domestic prices. Contrary to popular thinking, the price cap will reduce investment and production.

Australians expect to share in their resources wealth, but price caps are not a good way to achieve that. Forcing companies to sell on the domestic market at a lower price reduces the value of Australia's gas resources – an opportunity cost. It would be better to maximise the value of the resource and then to choose a tax policy that does not affect investment. A prototype for this already exists.

Australian price cap might become permanent

The price of natural gas sold in Australia has been capped at AUD \$12 per gigajoule (GJ) for 2023. At current exchange rates, that is equivalent to USD \$7.90 per mmbtu¹, which is much lower than the Asian price of around USD \$30 per mmbtu late last year.² The domestic price cap has a relatively narrow scope – it applies to gas supplied by producers in eastern Australia during 2023, under agreements signed after 23 December 2022.

More importantly, the government has [proposed](#) permanent price controls in the form of a 'reasonable pricing provision'. The aim is for domestic gas prices to match production costs, where costs include exploration costs and a return to capital.³ So far, we know that the government currently considers AUD \$12 per GJ to be a reasonable price.

To ensure that producers do not avoid the price cap by simply re-directing gas to the export market, producers would be required to make offers broadly available to the domestic market. The timing for issuing expressions of interest would be regulated, and binding arbitration would be available to parties that cannot form an agreement. However, the government cannot force producers to explore for, or produce, more gas.

How did we get here?

A quick overview of recent market history. During 2015 and 2016, three Liquefied Natural Gas (LNG) export terminals commenced operation on the east coast of Australia. Since then, domestic gas prices have risen, together with Australia's collective eyebrows. Real gas prices averaged AUD \$4.21 per GJ between 2010 and 2015 and then doubled to AUD \$8.55 per GJ between 2016 and 2021.⁴

The LNG projects produce large amounts of gas in Queensland, some of which is sold on the domestic market. The LNG projects have substantial bargaining power because they have an outside option to export

at the Asian price. As such, they offer prices to the domestic market that are linked to the Japan Korea Marker (JKM).

Some large industrial gas users have struggled to cope with the higher gas prices, with many closing up shop. Following the turmoil in Europe, contract [prices](#) as high as AUD \$30 per GJ have been offered for domestic supply in 2023.

The influence of the export price in the domestic market has increased over time as gas supply in southern states has declined. State governments in NSW, Victoria and SA share responsibility for this, with [bans](#) on new developments contributing to the decline in gas production. If produced, southern gas could be sold at a discount to the LNG price, because it is further from the export plants and closer to demand centres. Indeed, if gas supply was large enough that LNG export plants were at capacity, the domestic price would again decouple from the export price.

Price caps will discourage investment

Some have [argued](#) that the LNG industry never expected prices to be as high as current levels, so imposing price caps would not affect investment incentives. I disagree.

Although a war in Europe was unexpected, high LNG price events are not. Global LNG supply is inherently inflexible, because increasing liquefaction capacity is costly and slow, and the market remains illiquid, particularly in [Asia](#). Investors know that small increases in demand can create large increases in price. (The converse is also true, small declines in demand create large price falls.)

Figure 1 shows the Australian netback price, from before the turmoil in Europe. This is the Australian domestic gas price that is equivalent to the prevailing export price (calculated as the spot JKM price, converted to Australian dollars and units, subtracting liquefaction and shipping costs).⁵ During the time that the Queensland LNG projects made their investment decisions, the LNG price was well above \$12 per GJ for a sustained period. That high price event was due to the tsunami that hit Fukushima in 2011.

Investors in eastern Australia surely recognised the potential for high LNG prices, certainly above \$12 per GJ. They deliberately left some room to participate in the spot market, rather than selling their full capacity to Asian buyers under long term contracts. That is, the decision to invest in Queensland gas fields was made on the basis that that large volumes would be sold under long term contracts to Asian buyers, with some upside opportunity from the spot market.

Kelly Neill is affiliated with both the School of Economics, University of Sydney and the Center for Energy Studies, Baker Institute for Public Policy. She can be reached at kelly.neill@sydney.edu.au

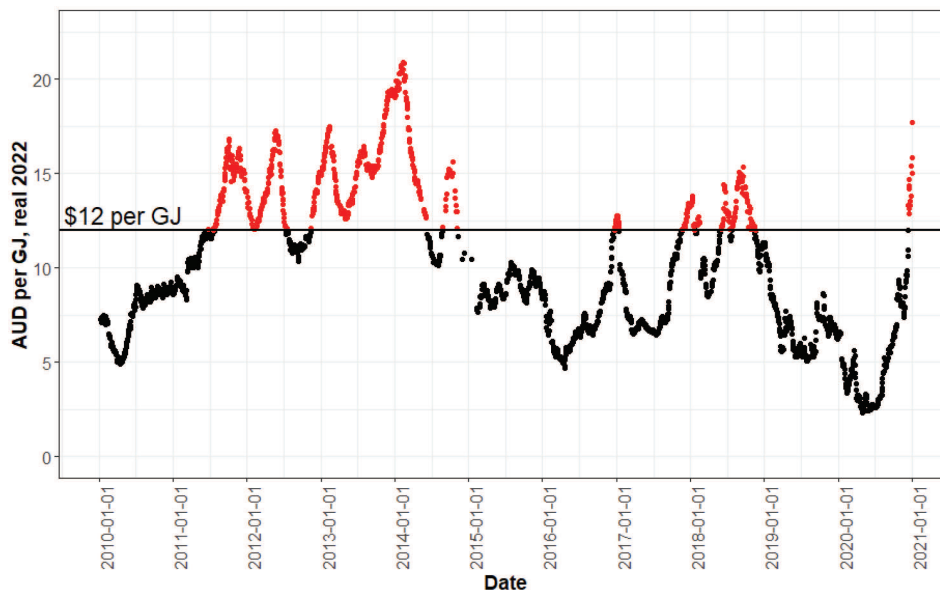


Figure 1: JKM - Australian netback price

If the Australian government limits LNG profits in the good times, but does not help out during the bad times, companies are left with all of the downside risks, and reduced upside risks. They will be less willing to invest in natural gas exploration and development, reducing longer term production levels.

In the short to medium term, LNG projects can respond to reduced profitability by producing less from their existing fields. The government argues that the price cap covers the lifecycle costs of gas and would not affect production. While the cap may be higher than average gas costs, within any field there are always wells that are low productivity and too expensive to drill. The lower the price cap, the more of these wells that will not be drilled.

Production is flexible enough to respond in the short term – production volumes in Australia already respond to seasonal fluctuations in demand. In Queensland, gas is produced from coal seams, which require more frequent investment in drilling activities, and will therefore be more responsive to prices.

A price cap diminishes Australia's resource wealth

Most importantly, Australia now has the option to export gas at prices much higher than AUD \$12 per GJ. By forcing gas companies to sell to the domestic market at lower prices, the gas industry foregoes revenue. The value that domestic users get out of this gas is not high enough to make up for this. We know that domestic users value the gas less than the export market, because otherwise they would be willing to pay the higher price.

Fundamentally, this policy will reduce the value of Australia's natural gas, at the same time as reducing investment in exploration, development and production.

A tax whereby Australians share resource profits and losses would be better

Policy makers wish to ensure that the "domestic wholesale gas market delivers for Australians". Australia

owns the country's natural resources (through their governments), and as such are entitled to benefit from their extraction.

To maximise their benefits from natural gas, Australians should first seek to maximize the resource's value, by exporting it. Then, they can share in this value using a tax similar to the existing Petroleum Resource Rent Tax (PRRT).

The PRRT currently applies to offshore oil and gas projects, and attempts to replicate a situation where the Australian government is a silent shareholder in each resources company. Under a well-designed version of this tax, the government shares in resources profits when prices are high. Importantly, it also shares in the investment costs and any losses when prices are low. In theory, the tax does not change the risk profile of the project, it only reduces the company's share of the project. As a result, investment incentives are not reduced. A project that is marginally profitable without the tax is still marginally profitable with it. It does not become unprofitable.

The current design of this tax is not perfect, as highlighted by the [Callaghan Review](#) in 2017. However, it is far better than the ad-hoc interventions in the market currently being considered.

To tax gas extracted by LNG exporters, the Rudd and Gillard governments [extended](#) the PRRT to onshore gas projects in 2012. However, significant grandfathering concessions were made, and at the time no revenue was expected to be earned from the LNG export projects. In 2019, onshore projects were exempted from the tax, by the Morrison government.

Australian voters currently feel that they deserve a greater share of their resources wealth, particularly from the gas industry. This momentum should be channelled into designing a better longer-term mechanism for Australians to share in their resource wealth. It should not be wasted on counter-productive price caps.

Footnotes

¹ On January 17, 2023, the exchange rate was 0.6973 and an MMBtu is 0.947817 of a GJ.

² Japan Korea Marker, JKM

³ This will be implemented via a mandatory code of conduct, which requires producers to offer their gas domestically at 'reasonable' prices, and binding arbitration for pricing disputes.

⁴ Spot prices in the Victorian '[Declared Wholesale Gas Market](#)', adjusted to real terms (2022) using the producer price index.

⁵ The netback method follows the [ACCC](#), but extends it backward to include a longer history.