GRATTAN Institute

August 2022

The Australian Domestic Gas Security Mechanism can be improved and complemented to ensure a secure and affordable gas supply in the transition to net-zero emissions.

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Response to the Issues Paper published by the Australian Government's Department of Industry, Science and Resources on 1 August 2022 on options to improve the Australian Domestic Gas Security Mechanism.

1 Summary

Natural gas has played an important role in Australia's domestic economy for more than 50 years and has contributed to our exports for more than 30 years. The Australian Government has published an Issues Paper that identifies an expectation that the east coast market will see a shortfall of gas in 2023. This is consistent with reports by the ACCC and the Australian Energy Market Operator warning of east coast shortfalls.

Considering the obvious concerns raised by these projections, the Issues Paper identifies and seeks views on options to overcome shortcomings in the Australian Domestic Gas Security Mechanism (ADGSM).

The ADGSM gives the Government the power to restrict LNG exports if there is a projected shortfall a year ahead in the domestic gas market.

Under a complementary Heads of Agreement (HoA) with LNG exporters, the latter have agreed to help avert potential shortfalls by offering uncontracted gas to the domestic market on internationally competitive terms before offering to the export market. The Government has extended the ADGSM to 2030 and is proposing to negotiate a new HoA.

Although both LNG exporters and domestic gas customers have been critical of these arrangements, the evidence is that there has not been a domestic shortfall since they were introduced. They were sorely tested in the second quarter of 2022 when both the electricity and gas market were subject to unprecedented intervention by the market operator. Although shortfalls were averted, wholesale gas prices have risen alarmingly with flow-on consequences for power prices. The high prices are expected to continue for some time, considering international circumstances.

In this submission we make the following observations and recommendations to the Issues Paper:

- The ADGSM and HoA are effective in avoiding gas shortfalls. They can be improved to be more responsive.
- It is unlikely that any policy or mechanism could have averted the recent east coast energy crisis, including any form of gas reservation policy.
- High gas prices should be addressed to avoid a major loss of industry and further cost of living impacts for households. This would best be done by a windfall profit tax on domestic sales by LNG producers.
- The broader energy market reforms being considered by energy ministers should consider closer integration of the electricity and gas markets.
- All the above need to acknowledge that the role of gas in the Australian economy must diminish if we are to meet our emissions targets.

2 Introduction

This submission is made by Tony Wood, Alison Reeve, and Esther Suckling of the Grattan Institute. Grattan Institute is an independent think-tank focused on Australian domestic public policy. It aims to improve policy outcomes by engaging with both decision-makers and the community.

This submission responds to the Issues Paper published by the Australian Government Department of Industry, Science and Resources on 1 August 2022. The paper puts forward options to improve the ADGSM.

The strategic issue is to ensure a competitive domestic gas supply and a strong LNG export market while supporting the achievement of Australia's climate change targets.

In the last year or so, concerns about the security of supply to Australia's east coast gas market have been raised in three distinct contexts with three distinct timeframes.

First, the east coast market has experienced a sharp and extreme lift in gas demand over the last few months triggered by an increase in demand for gas for power generation. This was due to major outages at coal-fired power stations and exacerbated by cold weather. That extreme position has largely abated, although potential shortfalls as early as next winter remain possible.

Second, in July 2022, the ACCC released a further Interim Report[1] in the series that constitutes its Gas Inquiry 2017-2025. In that report, the ACCC reported with great concern 'that LNG exporters have informed us that they expect to export the vast majority of this gas as spot cargoes or additional LNG sales.' If this happens, the ACCC's analysis indicates it would leave a 56PJ shortfall in 2023.

Third, the Australian Energy Market Operator released its Gas Statement of Opportunities in March 2022 for eastern and south-eastern Australia.[2] This report describes great uncertainty in the future demand for gas in Australia over the next 20 years. However, it identifies a risk of shortfalls in the winter of 2023, driven by falling local supply and the expectation that new supply solutions will be too late.

The ACCC report has sharpened the Government's review of the ADGSM and provided greater focus on the options identified in the Issues Paper to improve gas security. Improvements to the ADGSM and HoA, alongside other market reforms and future market developments should ensure longer-term supply security. However, even with hindsight, it is unlikely that there is any realistic mechanism that would have avoided the consequences of the first of the above issues.

[1] July 2022 interim report | ACCC

[2] 2022-gas-statement-of-opportunities.pdf (aemo.com.au)

Australia should not have a security problem with gas supply, either now or in the future. Since the ADGSM was introduced, there has not been a shortfall. Figure 1 from the Issues Paper shows a declining net contribution of gas to the east coast domestic market by LNG exporters in recent years. This is not, per se, evidence of a security problem. Indeed, the mechanisms introduced by the Turnbull Government have arguably avoided a shortfall.

With some improvements as envisaged by the Issues Paper, this position should be broadly sustained if other developments occur. These include removing bottlenecks for transport infrastructure, alternative southern supply, and progressive decline in gas demand in line with Australia’s climate change objectives and targets.

The Issues Paper includes seven principles intended to provide a frame of reference to balance issues in the development of improvements to Australia’s gas security. These principles read more like a set of ideal, sometimes conflicting, objectives for which a balance will have to be achieved.

This submission makes some comments on the principles and on the options listed in the Paper.

3 Principles

3.1 Ensuring sufficient supply

Natural gas has been a valuable energy source in Australia for more than 50 years. But it faces two challenges. First, Australia must reduce emissions over time to meet our climate change targets. The gas sector is no exception. Second, the east coast will not go back to the good old days of low-priced gas, making gas an increasingly expensive energy source.

The reality is that eastern Australia faces inexorably more expensive gas, and the impact will be felt by manufacturers, power generators, small businesses, and households. If the Government tries to swim against this tide through direct market interventions, it will probably require ongoing subsidies at great cost to taxpayers.

Even if the Government could significantly reduce gas prices, the benefits to manufacturing are overstated. Undoubtedly, high gas prices threaten some businesses. But gas use in manufacturing is highly concentrated in three sectors that contribute only about 0.1 per cent of gross domestic product and employ only a little more than 10,000 people[3]. And much of this gas-intensive industry is in Western Australia, which enjoys low gas prices already.

Ensuring sufficient supply need not assume demand is static. The government could invest in demand reduction – for example through the National Reconstruction Fund – by encouraging manufacturing to move to electricity. This would save manufacturers money, modernise facilities, and reduce emissions. The hypothesis that continued investment in new supply will be needed should be tested against the medium-long term outlook if the climate targets are serious.

The best role for governments is to support the long-term development and deployment of the low-emission alternatives that can replace natural gas in manufacturing, such as renewables-based hydrogen and renewables-based electricity.

3.2 Downward pressure on gas prices

Any policy consideration on gas prices needs to consider the nature of contracting and price transparency in the wholesale gas market. Gas-reliant businesses generally contract for their gas, although they may take some exposure to the spot market in looking to optimise their risk exposure. Price impacts are going to be spread over time, as contracts roll off and are renegotiated. The ACCC has made several recommendations on competition in the wholesale and pipeline gas sectors that should be implemented.[4]

[3] https://grattan.edu.au/wp-content/uploads/2020/11/Flame-out-Grattan-report.pdf

[4] https://www.afr.com/companies/energy/pull-the-gas-trigger-and-levy-a-super-profits-tax-too-20220801-p5b6cj

The proposal that gas should be affordable to gas users is hardly a principle but rather the wishful thinking of politicians and some gas-using manufacturers. There should be a more fundamental objective beginning with competitive price benchmarks. Ideally this should be based on a published, reputable figure and until recently, the best we had was the ACCC's ongoing review of export parity netback pricing. The current, international circumstances of the war in the Ukraine mean that such a benchmark is out of the question, financially and politically.

In Section 4.1.2 of this submission, we propose that an appropriate benchmark could be set by the ACCC, representing a fair price or price range. This benchmark could be the trigger for a windfall profit tax as we also propose. The benchmark would fall back to export parity as the international situation normalises.

3.3 Global contribution to energy security

In the current environment, Australia is unlikely to find itself without gas customers. As well, existing customers are actively seeking extra cargos of LNG – in other words, they are not considering our energy security.[5] As with all commodities, Australia should actively link with global markets. However, recent events have demonstrated how the geopolitics of energy security can create a threat to Australian supply and prices.

3.4 International investors

Investors in Australia's LNG sector are currently making windfall profits. A change to the ADGSM is not going to change the underlying fundamentals of their investments, which, if anything, will be paid off sooner than expected thanks to the high international price. A more useful objective for the design of the ADGSM is how to achieve an acceptable balance in meeting principles 3.2, 3.3 and 3.4.

3.5 Support the energy transition

The role of gas as the residual fuel in the energy market is paramount for domestic energy security. Events this winter point to the importance of considering interactions between gas and coal generation (for example, more unscheduled coal outages mean more gas consumption), and the need for national consistency in the management of gas markets. Actions in an individual state such as the imposition of Victoria's $40/GJ price cap can lead to unintended consequences in adjacent states.

In comparison with some northern hemisphere countries, Australia experiences relatively mild winters and that is reflected in the modest amount of gas storage used to manage periods of high seasonal demand. However, gas storage may play a very different role in a high-renewables electricity market. This role will

[5] see https://www.bloomberg.com/news/articles/2022-08-08/south-korea-accelerates-lng-purchases-to-avoid-winter-shortage#xj4y7vzkg

be strongly determined by the emerging reforms to the electricity market to address shortages in dispatchable capacity.

The uncomfortable consequence of the energy transition is that natural gas is in decline in Australia. That reality may be painful for some in the short term, but neither wishful thinking nor denial will serve us well. The only rational approach, for governments, the energy industry, and its customers, is to begin planning for a future without natural gas, or one where gas plays a substantially reduced role.[6]

3.6 Enhanced transparency

Gas shippers and customers have been frustrated for many years by the lack of transparency and competition in the wholesale and pipeline sub-sectors. This remains the case as documented in the ACCC's most recent report. These are not issues that can be addressed by improvements to the ADGSM.

The publication of a benchmark contract price, a role previously proposed for the AER could be one solution for the wholesale market. A move to a gross pool market like the National Electricity Market or as introduced in the USA would be a more substantial, and probably controversial, answer.

Pipelines are clear natural monopolies and moving them to regulated pricing is likely to be a better answer than the incremental ideas proposed by the ACCC.

3.7 Minimise implementation costs and complexity for government and industry

The focus of reforms to the ADGSM should be the best interests of Australian consumers. Low compliance costs for industry and government could be achieved through a soft compliance regime, but with little gas being diverted to the domestic market.

[6] https://grattan.edu.au/wp-content/uploads/2020/11/Flame-out-Grattan-report.pdf

4 Options

4.1 Strengthen the ADGSM

4.1.1 Activate at short notice

Shorter notice on targeting the ADGSM may be a good idea but should be coupled with other measures like storage and greater transparency that requires gas generators to show they have sufficient reserves for winter. Recent issues and possible reforms in the gas market bear a strong resemblance to the challenges and policy solutions (such as capacity mechanisms) being considered to manage the electricity transition.

It is unlikely that any form of activation could have addressed the recent volume squeeze and the only solution would have been some form of very considerable strategic storage that would have sat idle for just about the entire history of the gas market.

The activation of the Gas Supply Guarantee was a reasonably effective response to an immediate gas supply problem for electricity generation. However, its implementation illustrates why there needs to be greater integration of east coast electricity and gas markets. The Energy Security Board should be asked to consider how this could be achieved.

There is some evidence to consider a higher forward risk of shocks leading to gas shortfalls. This risk arises as the role of gas shifts strongly to becoming a source of dispatchable capacity in a system dominated by intermittent solar and wind generation.

The Energy Ministerial Council is leading the work on reforms to the electricity market to protect power system reliability and security. The outcome of this work program will determine both the role for gas in the market and also the case for expanded gas storage to support that role.

4.1.2 Price-based activation

Export parity, as reported by the ACCC in its biannual reports on the gas market, has been implicitly used as a domestic price constraint. The extraordinary increases in the international spot price driven by the war in the Ukraine exposes flaws in that approach, leaving a vacuum in how internationally competitive prices should be determined under the HoA.

The current problem could best be addressed by a windfall profit tax on domestic sales by LNG producers. This tax could be triggered by an ACCC estimate of a fair price range based on prior periods' pricing. It would have the advantage of directly addressing the current problem, would automatically fall away with the windfall profits, and is defensible against claims of sovereign risk. The Government is not considering such a tax, presumably because of its pre-election commitment of new taxes. But this commitment was made in a different context, i.e., when the spot price was between $5 and $10/GJ. When circumstances change, it is reasonable to revisit and change past commitments.

Alternatively, a reference price, determined in much the same way, could be used as a trigger for the ADGSM. If triggered, it would become the reference price for determining internationally competitive pricing under the HoA. A price trigger becomes an ongoing structural element of ADGSM/HoA structure and the potential for unintended consequences would need to be fully explored.[7]

4.1.3 Incentivising domestic supply

The paper does not provide justification for this idea, including reasons why market demand would not be enough to support production to meet domestic demand.

4.1.4 Improve administration of export permits

Published information about the contractual commitments imbedded in the various joint venture arrangements may be the cause of producers being declared as in net deficit. We have no expertise to comment constructively on this option except to note that a choice between forcing the breaking of those arrangements or imposing a supply obligation on a producer in deficit seems challenging.

4.2 State and territory measures to increase supply

We are not aware of an historical precedent where each state has ensured their own gas demand has been met by their own gas supply. It is a particularly bad idea in an interconnected gas market delivering national benefits

[7] Lessons from the role of price caps in the recent electricity market crisis should be considered.

It is unfortunate that states have different positions on unconventional gas and/or fracking. The absurdity of the position is clear when recognising that gas produced using fracking could be physically or financially supporting gas supply in a state where fracking is banned.

States and territories should make plans to transition away from gas, with clear dates about when this is going to happen and how impacts on electricity and feedstock users will be managed. As a first step, they should be discouraging new gas connections, and encouraging the replacement of domestic gas appliances with electric ones. The Commonwealth can help by:

- Encouraging a co-ordinated approach through the Energy National Cabinet Reform Committee
- Sharing structural adjustment costs with the states, including using the National Reconstruction Fund to electrify the manufacturing sector.
- Stop subsidising the expansion of gas extraction and use
- Using the energy system planning tools and the rules-making processes available through the Energy National Cabinet Reform Committee to encourage an orderly transition
- Commissioning the Australian Energy Market Operator to assess the amount of gas storage that will be needed to support a high-renewables grid, and how

the evolving capacity mechanism design can support this level of storage.

In addition, Victoria should remove its gas price cap, because this makes managing supply between states more difficult. No state-based reservation policies should be considered.