ACCC & AEMC Gas Reviews: *the future or a misdirection?*

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1 What is the problem the reviews are seeking to address?

Governments establish reviews when there is an emerging case that there is a "problem" that may need to be addressed through policy or regulatory intervention.

In its East Coast Gas Market Inquiry the ACCC clearly and concisely identifies the "problems" its recommendations are intended to address:

(a) there is a real risk of supply not meeting demand due to gas flows to the LNG projects, and reserves may not be developed in time to meet forecast demand as a consequence of low oil prices and moratoria on onshore gas exploration;

(b) there is a reduction in diversity of sources of supply; and

(c) while pipeline operators have "*in general responded well to changes by offering more flexible services and carrying out major investments… there is evidence that a large number of pipelines have engaged in monopoly pricing."*[1]

The ACCC report is very explicit in relation to (b): *Declining production in the Otway and Bass basins, redirection of Cooper Basin gas to Queensland, moratoria and other regulatory restrictions on on-shore gas exploration…have combined to severely reduce the availability and diversity of supply in the southern states. This means that domestic users are becoming highly reliant on gas produced by the Gippsland Basin Joint Venture*[2]*.*

In contrast the AEMC report proceeds on the basis of a vision of a desired state of affairs identified by the COAG Energy Council: *"a liquid wholesale gas market that provides market signals for investment and supply, where responses to those signals are facilitated by a supportive investment and regulatory environment, where trade is focused at a point that best serves the needs of participants, where an efficient reference price is established, and producers, consumers and trading markets are connected to infrastructure that enables participants the opportunity to readily trade…"*[3]

As Alan Young's presentation demonstrates, there is compelling evidence of supply not meeting demand and a reduction in the diversity of sources of supply. Real world issues of supply and demand and highly concentrated markets are rarely effectively addressed by new rules and regulatory intervention unless they are directed at reducing barriers to new entry and facilitating new investment. The question is whether the recommendations by the ACCC and AEMC are directed to addressing the underlying problems of the east coast gas market or whether there is a risk that they will be a misdirection in policy initiatives.

[1] ACCC, 'Inquiry into the East Coast Gas Market', April 2016, p 8.

[2] ACCC, 'Inquiry into the East Coast Gas Market', April 2016, p 7.

[3] COAG Energy Council, 'Australian Gas Market Vision', December 2014, p 1.

2 The answer is [always] regulation – when you ask a regulator to review a “problem”

Other than the ACCC’s proposals to review the GBJV joint marketing arrangements, the recommendation against blanket moratoria and to not introduce gas reservation policies,[4] none of the ACCC’s recommendations address the fundamental problems of a tightening supply/demand balance and highly concentrated sources of supply.

While the ACCC makes a number of very sensible recommendations designed to improve the availability of relevant information, such as consistent reporting of reserves information and publication of a Wallumbilla LNG netback price,[5] its key recommendation is to increase the regulation of pipelines.[6]

The ACCC proposes to address the so called “monopoly pricing problem” by changing the threshold for coverage or regulation of pipelines under the National Gas Law. I refer to it as the so called “monopoly pricing problem” because the ACCC itself acknowledged “*it was beyond the scope of this Inquiry to carry out a detailed forensic examination of the prices charged by every pipeline on the east coast to determine whether they involve the exercise of market power”.*

Currently the key coverage criteria is that access must promote a *material* increase in competition in upstream or downstream markets (criterion (a)).[7] The ACCC recommended that the coverage criteria be replaced with a new test that:[8]

(a) the pipeline in question has substantial market power;

(b) it is likely that the pipeline will continue to have substantial market power in the medium term; and

(c) coverage will or is likely to contribute to the achievement of the National Gas Objective.

This recommendation will mean that most pipelines are susceptible to regulation given that the conventional definition of “a substantial degree of market power” is the absence of competitive constraint on commercial decision making.[9] Even in circumstances where two pipelines serve the same demand location, as is the case with the Moomba to Sydney pipeline and the Eastern Gas pipeline, a residual demand analysis – commonly undertaken by competition authorities[10] – would suggest that both pipelines have a substantial degree of market power because their services are required to meet demand.

By changing the coverage criteria, the proposed reforms will materially increase the prospect that currently unregulated pipelines will be subject to cost based revenue and pricing regulation and the mandatory provision of “reference services”. Currently, the Australian Energy Regulator (**AER**) regulates the Amadeus Gas Pipeline, APA GasNet, Roma to Brisbane Pipeline, Carpentaria Gas Pipeline and the Central Ranges Pipeline.

[4] ACCC, ‘Inquiry into the East Coast Gas Market’, April 2016, p 8.

[5] ACCC, ‘Inquiry into the East Coast Gas Market’, April 2016, p 88.

[6] ACCC, ‘Inquiry into the East Coast Gas Market’, April 2016, pp 136-141.

[7] ACCC, ‘Inquiry into the East Coast Gas Market’, April 2016, pp 129-130.

[8] ACCC, ‘Inquiry into the East Coast Gas Market’, April 2016, p 138.

[9] *Boral Besser Masonry Ltd v ACCC* [2003] HCA 5 at [137]; *ACCC v Australian Safeway Stores Pty Ltd* [2003] FCAFC 149 at [300].

[10] Greg Houston, ‘A report for DLA Piper, on behalf of the ACCC’, 16 May 2014, pp 20-28. This report was submitted as evidence by the ACCC in *Application for Authorisation of Acquisition of Macquarie Generation by AGL Energy Ltd* [2014] ACompT 1.

The pipelines that will be vulnerable under the proposed test are: Eastern Gas Pipeline; SEA Gas Pipeline; Moomba to Adelaide Pipeline; Ballera to Wallumbilla Pipeline (part of the South West Queensland Pipeline); Queensland Gas Pipeline; Carpentaria Pipeline; and the NSW-Victorian Interconnect Pipeline.

Like the ACCC, the AEMC makes a number of recommendations intended to increase the scope and quality of capacity and trading information available to sellers and buyers of gas and pipeline/storage services. These recommendations dealing with the Bulletin Board take up 4 of the 173 page report.[11]

The AEMC devotes most of its attention to the recommendation dealing with what the AEMC describes as a "market design concept". The market design concept promoted by the AEMC is a combination of a "physical" trading hub at Wallumbilla and a "virtual hub" covering the Victorian DTS.

"Price discovery" will apparently occur via "exchange based trading of "day-ahead" and "balance of day spot products and forward products". Participation in the Victorian virtual hub would be compulsory as it would provide the "balancing mechanism" for injections and withdrawal in the system. The rationale for these recommendations is that "*the Commission has sought to concentrate trading liquidity and to set out a preferred trading approach that facilitates ease of use and understanding by participants*".[12]

The package of reforms for the DWGM to create the "southern hub" are largely standalone. The AEMC's criticism of the DWGM is that it has exposed participants to increased spot price risk[13] and that it does not have the mechanisms necessary to encourage market-driven investment in the pipeline system.

Under the new model:

- trading will occur on a voluntary, continuous basis but be underpinned by a mandatory residual balancing mechanism;
- an anonymous trading exchange similar to that used at Wallumbilla will be introduced;
- common gas day start times, back-end systems, registration, prudential, settlement and training to those used in Wallumbilla will be used; and
- a system of entry and exit rights for capacity allocation will be introduced (replacing the current market carriage model).[14]

In order to support the "physical hub" at Wallumbilla, extensive and intrusive regulation of pipeline capacity will be required. The AEMC recommends the introduction of a compulsory day ahead auction of contracted but un-nominated capacity with a reserve price determined by the AER. The rationale for this intervention is that the AEMC fears that "*some shippers may have a countervailing incentive not to sell capacity".*[15] Remarkably the ACCC report states that *"the inquiry has found no evidence of economic withholding of capacity by shippers on major arterial pipelines*".[16]

The AEMC also proposes that regulation should require pipelines and shippers to disclose their capacity contracts "<u>including the price</u>"[17]. Further the AEMC states that

[11] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, pp 114-118.

[12] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, p 47.

[13] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, p 56.

[14] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, p 60.

[15] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, p 72.

[16] ACCC, 'Inquiry into the East Coast Gas Market', April 2016, p 146.

[17] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, p 27.

there should be *regulatory oversight* on the development of "standardised primary capacity products" to precipitate trading.[18]

The rationale for these reforms in the draft report was "*anecdotal evidence …suggests [secondary transactions] are occurring for longer term capacity ..but rarely in the short term*".[19]

In the final report the AEMC acknowledges that trading is occurring but *"… the bespoke nature of transportation agreements… and the lack of public information on prices… are acting as barriers to trade and limiting capacity utilisation and gas flows…"*[20]

Remarkably neither the AEMC report nor the ACCC report provide any evidence of or even the suggestion of unmet demand for short term pipeline capacity trading. In fact the ACCC records that*: "over the last two years some pipeline operators have begun listing specific short-term firm capacity for sale, that is, for a week (APA) or for a month (Jemena) on websites, but there has been limited take-up of these services*".[21]

3 Will the recommendations address the "problems"?

Do the ACCC and AEMC recommendations address the underlying structural issues in the gas market? Other than the GBJV recommendation they will not facilitate bringing more gas to market nor address the fundamental problem of concentrated market power in the wholesale supply of gas.

While the AEMC report provides "market design concepts" and a description of the goal of "liquid wholesale gas markets" the AEMC review does not address the fundamental conditions that have given rise to the "problem" – a tightening supply and demand balance and concentration in the supply of gas. To be fair to the AEMC, if there is a criticism in this it is more appropriately directed at the terms of reference provided by the Ministerial Council which are premised on the answer the AEMC was effectively directed to find.

My fundamental concern in relation to the AEMC report is that, if implemented, it actually has the capacity to not only dramatically increase the regulatory burden on the gas industry but as I explain below it also has the capacity to compound the structural problems in supply.

The AEMC has leapt to a series of recommendations about "market design" and "liquidity" without any critical analysis of the structural conditions necessary to deliver liquid markets. The AEMC is effectively saying that if regulation can compel or facilitate trading the market will be liquid. It points to the fact that there are 50 market participants in the Victorian Declared Wholesale Gas Market (**DWGM**) *"*[22].

In reality for the short to medium term the number of participants <u>with gas for sale</u> can be counted on one hand.

In its report the AEMC does not explain what it understands a "liquid" market to be. In proceedings in the Australian Competition Tribunal in 2014 Professor Stephen Gray gave

[18] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, p 33.

[19] AEMC, 'Stage 2 Draft Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', December 2015, p 64.

[20] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, p 68.

[21] ACCC, 'Inquiry into the East Coast Gas Market', April 2016, p 143.

[22] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, p 47.

expert evidence, in the context of the National Electricity Market, as to the meaning of the term "liquid markets":

> *In a financial market, liquidity facilitates the buying and selling of securities (or other assets) <u>without a material price impact</u>. In a liquid market, a buyer will be able to buy at the going price when they choose to do so and later sell at the going price when they choose to do so. <u>The importance of liquidity depends on the time horizon of the investor</u>. Even within the same market, different investors will value liquidity differently. For example, an investor who is buying shares with the intention of holding them until they retire 30 years hence, will be relatively unconcerned about liquidity. Whether the investor can buy the shares immediately or has to progressively purchase them over the course of a week makes little difference to the overall outcome. However, a hedge fund implementing a high-frequency trading strategy may need to be able to enter or exit the market within seconds of a trading signal being generated.(emphasis added)*

Professor Gray makes two important points in his evidence that are relevant to the east coast gas market. Firstly markets will be liquid when trades occur without material price impacts. In markets where supply is concentrated in the hands of a small number of participants that <u>condition will not be satisfied</u> in the short to medium term. Secondly the importance of "liquidity" to buyers is a function of their time horizon. I suggest that the majority of buyers of gas on the east coast are interested in securing reliable supply at acceptable prices over the medium to long term because for most buyers gas is a commodity consumed in domestic heating and heating or in manufacturing processes. They are not buyers seeking to execute "high frequency trading strategies".

That is not to deny that the presence of traders and speculators in financial markets can contribute considerably to liquidity. In developing its "market design concepts" the AEMC has drawn from both the experiences of gas trading hubs in North America and the Europe and the National Electricity Market in which the presence of banks and traders in the derivatives market have been important to competition in that market. However, the structure of the North American and European gas markets and the National Electricity market is profoundly different to that of the east coast gas market.

The European Commission provides comprehensive statistical analysis of natural gas imports into its member countries. In 2014 there were 24 importers of gas into Germany, 29 into the United Kingdom and France[23]. In the United States the Natural Gas supply Association reports that there are over 6,300 producers of natural gas[24]. A standard tool in competition law and economics is the Herfinfdahl-Hirschman Index (**HHI**). The generation sector of the NEM has an HHI of approximately 1200.[25] Markets are generally not considered concentrated until they have an HHI of 2000.[26] While wholesale market share data for the east coast gas market is not publicly available the limited number of producers suggests an HHI in excess of 2000.

So in summary, in my view the AEMC recommendations are unlikely in the short to medium term to address the structural problems that have given rise to gas shortages and high prices. If the structure of the market changes through the entry of new suppliers and sources of supply the package of reforms recommended by the AEMC may well provide for the foundation of a future efficient market.

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[23] Eurostat. http://ec.europa.eu/eurostat/statistics-explained/index.php.

[24] http://naturalgas.org/business/industry/#overview.

[25] Frontier Economics, 'Competition Issues, 24 March 2014, p 102-103. This report is contained in Annexure to the affidavit of Professor Philip Williams dated 24 March 2014 in the matter of *Application for Authorisation of Acquisition of Macquarie Generation by AGL Energy Ltd* [2014] ACompT 1.

[26] ACCC, 'Merger Guidelines', November 2008, p 37.

4 Are there risks of unintended consequences?

4.1 Unintended consequences of compulsory benchmark prices, trading exchanges – rate manipulation?

The AEMC report has the virtue of acknowledging that its prescriptions will impose a material regulatory burden: "*Although the establishment of a virtual hub would be likely to present complex transitional issues and come with material implementation costs… the Commission is of the view that …a virtual hub trading model would represent an important part of the regulatory "tool-kit"."*[27]

As a competition lawyer I read the AEMC report with a degree of alarm. The AEMC is promoting a vision of "transparent" benchmark pricing, compulsory trading platforms and standardised products which will promote "liquid markets"[28].

While this is a market model that may be very effective in North America and in Europe where there is a multiplicity of producers and suppliers, real questions arise as to the effectiveness of the "market design concept" in highly concentrated markets. In competition law and economics factors such as transparent benchmark pricing, compulsory trading platforms and standardised products are referred to as the "plus factors"[29] which cause competition regulators to presume the presence of coordinated and cartel behaviour in in concentrated markets.

In a market in which there are a very limited number of suppliers the creation of "benchmark prices" which are intended to provide buyers and sellers transparency about the "market price" introduces the precise device that can be used to manipulate pricing.

One only needs to observe the now extensive number of cases around the world in which regulators have successfully prosecuted a small number of banks for benchmark manipulation. The most recent example of which involves seven US banks including Bank of America, JP Morgan, Citigroup and Deutsche in the manipulation of the ISDAfix benchmark - a benchmark price used to calculate the close out settlement of swaptions.[30]

US District Court Judge Jesse Furman noted:

> *it appears that this sort of rate manipulation can be both economically sensible and feasible given that many banks have admitted in approximately the same periods of time that they conspire to fix similar benchmarks – namely, Libor and the leading benchmark interest rate for the foreign exchange market in order to maximise profits.*

4.2 Unintended consequences of increased pipeline regulation

Nether the ACCC nor the AEMC report contain the thoughtful and balanced assessment of both the benefits and risks of regulation that we have seen in repeated reviews by the Productivity Commission in relation to economic regulation. This is particularly stark in

[27] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, p 145.

[28] AEMC, 'Stage 2 Final Report: East Coast Wholesale Gas Markets and Pipeline Frameworks Review', May 2016, pp 12-13.

[29] Kovacic, W.E., Marshall, R.C., Marx, L.M., and White, H.L. (2011), "Plus factors and agreement in antitrust law", Michigan Law Review 110(3) 393 at 422. ("In an industry where the product made by different firms is largely homogeneous, a shift in perceptions of sales forces across firms in an industry to 'price before volume' leads to the strong inference of explicit collusion.") Cited in *Z Energy Limited and Chevron New Zealand* [2016] NZCC 10.

[30] http://www.bloomberg.com/news/articles/2016-05-25/citigroup-turns-to-as-regulators-find-bank-rigged-isdafix.

relation to the various recommendations to increase the degree of regulation on transmission pipelines.

The ACCC has asserted that there is a "monopoly profits" problem in the pipeline sector on the basis that:[31]

> *The differences between the [expected return on equity on pipeline projects], the return on equity estimated by the AER and the return adopted in the winning bid for the NGP are substantial and are consistent with the significant degree of market power that existing pipeline operators can use when negotiating the prices to access incremental projects.*
>
> *… In contrast to new pipelines, the natural monopoly characteristics of pipelines means that it is usually far cheaper to augment an existing pipeline than it is to build another pipeline to provide any additional services that may be required (including bi-directional services). There is therefore little prospect for competition in the provision of incremental investments, which explains why their rates of return are in the majority of cases so much higher than the return assumed in the NGP winning bid.*

In its 2004 report on the Gas Access Regime the Productivity Commission set out perhaps the most thoughtful and balanced considerations of the risks and benefits of economic regulation of infrastructure. As the Commission observed, "*The presence of market failure is a necessary condition but not a sufficient condition for government intervention to increase efficiency. Intervention should only occur if it leads to a better outcome than that which would occur in its absence after accounting for the costs of implementing the intervention."*[32]

The Productivity Commission also noted:[33]

> *The greatest concern for this inquiry is that the Gas Access Regime's form of cost-based pricing regulation leads to inefficient investment because of:*
>
> - *Regulatory error – mistakes made in applying regulation*
> - *Regulatory risk – uncertainty about how regulation is applied increases the riskiness of investment*
> - *Asymmetric truncation – profits curtailed if it is better than expected*.

I want to take the last point – asymmetric truncation. The ACCC justified its recommendation of extending cost-plus pricing regulation of pipelines on the basis of a limited suite of projects in respect of which the ACCC observed the *expected return on equity on these projects ranges from 6% to 159%, with the exception of one of these projects, the expected return on the projects is 1.4 – 20 times higher than the return on equity benchmarks estimated by the AER*. [34] The point the Productivity Commission made in 2004 was that investors face a distribution of risk in relation to investments and therefore have a distribution of possible profits. The Productivity Commission noted:[35]

> *In essence, expected economic profit is constrained to zero (in net present value terms).under the Gas Access Regime to encourage competitive behaviour ex ante. However, the presence of risk means that actual economic*

[31] ACCC, 'Inquiry into the East Coast Gas Market', April 2016, p 105.

[32] Productivity Commission, 'Review of the Gas Access Regime: Productivity Commission Inquiry Report', 11 June 2004, p 83.

[33] Productivity Commission, 'Review of the Gas Access Regime: Productivity Commission Inquiry Report', 11 June 2004, p 102.

[34] ACCC, 'Inquiry into the East Coast Gas Market', April 2016, p 105.

[35] Productivity Commission, 'Review of the Gas Access Regime: Productivity Commission Inquiry Report', 11 June 2004, p 103.

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> *profit might not be zero [it may be less than zero]. That is, a high actual profit can be consistent with competitive behaviour. Nevertheless regulators might tend to interpret a high actual profit as evidence of monopolist behaviour.*

While a debate about regulatory truncation of returns may be considered erudite the ACCC has failed to acknowledge that a focus on ex ante expected returns of specific projects tells you nothing about the returns actually being earnt by investors over time in relation to the pipeline business as a whole. The ACCC also fails to acknowledge that regulatory error can impose substantial welfare losses through deterring investment. This is a real issue for the Australian pipeline industry that has invested $30 billion over the last 15 years.[36]

In addition, a further unintended consequence of increased coverage of pipelines under the National Gas Law and Rules will be a reduction in commercial flexibility. The architecture of the gas pipeline access regime has barely changed since it was first introduced in 1998. The regime requires regulated pipelines to have designated reference services (point to point haulage services) the terms and conditions of which must be approved by the AER at five yearly resets. The AER also determines the reference tariffs using a cost plus methodology which caps the allowed revenues from reference tariffs on an ex ante basis every five years. This inflexible regulatory architecture is unsuited to a gas industry as dynamic and unpredictable as has been experienced over the last 3 to 5 years.

5 Missed opportunities and a misdirection?

The AEMC failed to advise the COAG Energy Council that if it wanted a liquid wholesale gas market it firstly needed to facilitate new sources of supply. There is a real risk that the reform agenda is now focussed on the complex “market design concepts” advanced by the AEMC. The complexity of the implementation of the concepts are likely to, at best, mean a very long reform horizon (notwithstanding the ambitious timetables proposed). At worst, after further considerable effort by policy makers and industry stakeholders the implementation of the market design concepts is likely to be frustrated by issues such as legal and constitutional issues that the AEMC has not yet ventilated including:

(a) The intersection between the reforms to support the “Southern Hub” and the economic regulation of Victorian Transmission System (**VTS**) by the AER under the National Gas Rules. Are the new “exit and entry services” regulated under the Access Arrangements, if so how will new investments be “streamlined” under a five yearly revenue reset form of regulation?

(b) The need to rely on Commonwealth legislative powers to introduce regulation to support the “northern Hub” (as it involves shippers and pipeline operators on a number of interstate pipelines). With the use of Commonwealth legislative power comes constitutional constraints on interfering with the existing contractual rights of pipeline shippers and rights holders without the payment of compensation.

The AEMC also missed an opportunity to commence a demonstrable reform need. The National Gas Law and Rules which provide the form and frame work of regulation for pipelines is essentially that which was first adopted in 1998 on the introduction of the National Gas Code. It is wholly unsuited to the dynamic and unpredictable gas market we are experiencing today. However, this need is likely to quickly become apparent as the Gas Market Reform Group led by Dr Michael Vertigan proceeds to implement the AEMC reform package.

[36] ACCC, ‘Inquiry into the East Coast Gas Market’, April 2016, p 93.