Submission
No 12

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

Organisation: CSR Limited

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Marion Johnstone
Group Treasurer

The Director
Select Committee on the supply and cost of gas and liquid fuels in New South Wales
Parliament House
Macquarie St
Sydney NSW 2000

Email: gasinquiry@parliament.nsw.gov.au

Attention: Ms Emma Wood

Dear Ms Wood,

CSR LIMITED SUBMISSION:

Inquiry into the supply and cost of gas and liquid fuels in New South Wales

CSR Limited welcomes the opportunity to make a submission in response to the Inquiry. There are a number of issues that will have major implications for not just our business but all manufacturing industry and consumers, as it is core to the productivity and growth of production in Australia.

In this submission, CSR has restricted its commentary to specific issues relating to:

- the supply, demand and cost of natural gas
- its impact on CSR's manufacturing operations
- the commercial conduct of gas producers and the operation of the international and domestic gas markets.
- the adequacy of Commonwealth and State cooperation in gas market regulation

This represents the greatest energy issue facing CSR's business as a trade exposed manufacturer of building products. If you have any questions regarding this submission please do not hesitate to contact me.

Yours sincerely,

Marion Johnstone
Group Treasurer

1. Executive Summary

Headquartered in Sydney, CSR Limited is an ASX Listed Top 200 company with operations in Australia and New Zealand. The company has over 70 manufacturing and distribution facilities throughout Australia producing high quality innovative building products for use in the construction industry. The company employs approximately 3,000 people in Australia and made a significant contribution to the Australian economy totalling over $2000m in 2014 in the form of taxes and royalties, wages, contractors, suppliers, capital investment and corporate social investment programs. The Company was recently rated 38 out of the top 100 manufacturing companies by Manufacturers Monthly.

In New South Wales the company operates twelve manufacturing and processing sites employing over 750 FTE people.

CSR is both a major consumer of energy and also a contributor to innovative energy efficiency solutions within Australia. The development of the gas industry on the east coast and in particular New South Wales will have a direct impact on our business and confidence to continue to invest in Australia. State Government will also need to address the issue of rising gas prices for consumers and the Gas Plan and the ESS program, which has been supported by CSR, provide mechanisms to assist consumers.

The company is agnostic to the supply and development of gas resources by type of field or technology. Suffice to say that whatever method is used for gas extraction, governments together with the exploration and development industries will need to ensure they have the community on side. The NSW Gas Plan covers many of these issues.

The major energy challenge facing CSR's business relates to the supply and pricing of gas
To this end, CSR has commissioned external research and conducted internal research and analysis to understand and quantify the potential impact on its future business should the business as usual situation in the current gas market place be allowed to continue.

Overall CSR believes that Australia can have a successful export LNG industry and a successful manufacturing base. The right regulatory model has not yet been implemented that will support that objective. Urgently tackling the substantial and growing uncertainty in domestic gas supply will prevent manufacturing becoming a casualty of the LNG expansions and the consequent energy insecurity. It must address not only the significant value transfer that has already taken place but also the potential for further mass transfer of shareholder value due to the highly concentrated nature of the gas industry. This submission addresses those issues.

2. Introduction

As a leading manufacturer of building products, the Company is committed to ongoing innovation in the built environment. In 2013 BRW rated CSR 18th out of 50 most innovative Australian companies. CSR has received 20 patents in the last twelve months and has 48 patents pending. Many of these relate to improvements in energy efficiency in the construction and use of buildings. The company is organized into four divisions:

- Bricks and Roofing, which manufactures PGH™ Bricks and Pavers, Monier™ and Wunderlich™ Roof Tiles.
- Lightweight Systems which manufactures Gyprock™ Plasterboard, Cemintel™ Cement sheeting and Hebel products.

- Viridian™ Glass. This business manufactures float glass and has a downstream business fabricating and heat treating glass and producing integrated glazing units for double glazed windows.
- Bradford which produces Bradford™ Gold glass wool insulation, Edmonds™ Ventilation, and has a growing presence in energy efficiency businesses.

The businesses vary from Bradford™ Insulation and Viridian™ upstream glass being trade exposed and energy intensive, to energy intensive products such as bricks and terracotta tiles which while less directly trade exposed are subject to product substitution. One characteristic of these manufacturing processes is that they are gas dependent and are not easily shutdown. Any kiln based process, like a brickworks for instance, can take several days to cool down and inevitably requires a significant rebuild before starting up.

Finally, there are light weight systems (eg plasterboard and cement sheeting), which while consuming energy, tends to be a smaller component of product cost. Nevertheless increasingly these businesses are becoming more trade exposed and competitiveness in the sector is increasing. These plants are more easily closed and have been closed by the regulator at short notice when gas has been in short supply in the past in New South Wales. Furthermore the New South Wales Government is unable or unwilling to say how this will be handled in the face of future shortages. Gas supply contracts are no guarantee of actual supply.

CSR's expectation is that from 2015 onwards, gas prices for Australian businesses will double and that based on the AEMO outlook there may be insufficient gas to supply the NSW market reliably. The 2014 assessments from AEMO tended to discount this, but other assessments made available to CSR suggest that outages could be 10 or more days. CSR's direct experience from contract negotiations heighten concerns of supply insecurity. Furthermore private industry analysis commissioned by CSR shows that from 2018 a growing domestic shortfall will emerge against 2P reserves which could be as much as a 30% shortfall by 2025.

Under these scenarios CSR is expecting gas commodity prices will increase by 79% over three years in New South Wales. Until the dramatic fall in oil prices very recently, there has been little interest from suppliers in engaging in even preliminary discussions for supply of gas beyond 2015.

CSR closed its Ingleburn float glass factory in 2013, partly on a gas price arbitrage with Victoria. The shortfall from the lost production was made up from increased production in Victoria and overseas.

3. Typical Issues and Concerns

Bring on new gas supply as quickly as possible.

CSR agrees in principle with the concept, however under current policy settings this is unlikely to occur in time to solve the immediate shortage problem or pricing problem. ***What is more important to a functioning market is to have more suppliers.*** Under the current market structure, more supply from existing suppliers means more gas for exports. Given that Victoria and New South Wales in particular seem to be unable or unwilling to make this occur, there will be a reliance on other states. It would appear that there is already abundant knowledge and experience from a scientific and technical perspective. The issue is gaining the confidence of communities and this will not happen overnight. The Federal Government should have an overall responsibility to ensure that domestic users do not run short of gas or bear an exceptional cost burden. Of course, it is strongly in NSW interests to be engaged in this process.

Transitional measures such as prioritising the most advanced projects in NSW to reduce dependence on contestable imports to the state are necessary. To inhibit new supplies from being exported the Government should develop mechanisms to retain the gas in the state for example, through a scaled royalty regime or as a short term measure allocating new gas for domestic purposes. Energy corridors could be established to focus development and it would appear from the Gas Plan some measures have been taken consistent with this concept. Importantly the Government needs to restore confidence in users that it is taking the issue seriously and taking timely and positive action towards improved outcomes for the state.

Improve the availability and quality of market information to improve market transparency and competition.

The more information that is made publicly available, the better informed the market will be. This will be more effective if there is a national view of the market.

However while necessary, this is not sufficient for a functioning market where the market is lopsided with multiple buyers and few sellers. The market place asymmetry is compounded by the high degree of integration through the supply and value chain.

Establish Institutional arrangements to support and ultimately sustain a liquid and competitive domestic gas market

Evidence from other markets shows that increasing competition in the natural gas market is a process set in motion by government. Government must establish a market structure and regulatory regime that promotes competition. If done appropriately, the market competition will ultimately become self-sustaining, allowing government to step back to a market supervisory role.

Implement other gas market development priorities to expedite gas market reform.

CSR strongly supports measures to have an efficiently operating market and the bulk of our submission deals with our views on how that can be achieved. As discussed below, development of a truly competitive market requires a larger number of suppliers of size, ease of access to infrastructure, and confidence of consumers in the trading platform and hub, among other things. Work needs to start immediately so that investors and businesses have confidence in making future investment in Australia.

COAG Review

COAG processes are slow to deliver and a study by the Productivity Commission or the ACCC could speed up a path to reform. The latest announcement by COAG is welcomed, although it does not go far enough. Specifically, it is silent on any use it or lose it provisions. (The NSW Gas Plan item 6 makes provision for this and CSR supports this).

The COAG plan focuses on the Wullumbilla Gas Supply Hub. This is too remote from most domestic gas users and a more appropriate hub would be Moomba. The Moomba hub is the most relevant in terms of the interchange of pipelines and gas supply, and will grow in importance with the completion of the Northern Territory pipeline and should be developed by 2015, ahead of pipeline commissioning so that it can be fully effective. We provide more detailed comment on development of a trading hub below. Further hubs should be developed as the number of suppliers and supplying geographies increase.

The COAG plan also overlooks third part access provisions to processing plant, as recommended in the 2002 Parer review into energy markets. The COAG communique and Gas

Market Development Plan does not provide sufficient emphasis on de-constructing the supply chain from well head to consumer. A "use it or lose it" regime is required to ensure resource suppliers are sufficiently incentivised to bring gas to market and to encourage the entry of new participants.

"The natural gas industry is well known for its tendency to behave as a natural monopoly, since the high cost of infrastructure investments prohibit the development of parallel infrastructures to supply the same customers (especially at retail level). It is widely recognised that these vertically integrated supply systems need to be broken up." according to the International Energy Agency[1]. Experience around the world shows that separation of resource, transport, and commercial activities is a pre-requisite to the development of vibrant and competitive markets.

4. CSR views regarding market and regulatory reforms

Context & Background

The Australian market for gas has profoundly changed. The development of the export market for Australian gas has radically changed the landscape. The domestic Australian market is a tiny portion of a world market, and accounts for a small portion of domestic production. These changes have rendered the historical domestic market structure unworkable for buy side participants.

A handful of economic interests control almost three quarters of current reserves, while a similarly small group control almost 90% of Australian gas production (CSR commissioned research). At the present time, only a small fraction of available reserves is available to the Australian domestic market. The highly concentrated market has seen a high degree of integration from resource to consumer/ gas user, arguably substantially higher than seen in healthy, functioning markets. Despite the opening of export markets, joint marketing to the domestic market is still permitted.

At the present time, confidence in market outcomes and supply security is low because of the background outlined above. Transparency and opening of the domestic market to competitive operations is crucial to restoring confidence in the market to deliver.

Many of the necessary requirements regarding markets is a matter for COAG and/or the Federal Government, depending on where the relevant powers are drawn. There are some elements of the reforms which can specifically be dealt with by the New South Wales Government alone. In this paper we have not attempted to separate the issues by jurisdiction.

Objectives:

Open, fair, competitive & transparent markets in all aspects of the gas value chain

- Facilitate a thriving contestable market in all possible points of the value chain and provide a surrogate for competition where there are natural monopolies or structural barriers to entry
- Reducing historical concentration and barriers to entry at all possible points
- Transparent pricing set by competitive and contestable markets
- Promote a competitive, accessible, transparent market place
- Recognise and mitigate the impact of market power and industry concentration
- Preventing discriminatory or selective service in key areas of infrastructure
- Encourage the further development of infrastructure

- Avoid the exercise of excessive market power
- Protect customers with little choice
- Promote secure, high-quality, environmentally sound energy infrastructure

Themes:

- Because of the natural monopolies present in this type of market together with the legacy structure from a domestic only focus, addressing impediments to competition and facilitating market development is key, with surrogates for an open market to mitigate against the excessive market power delivered via natural monopolies and high concentration of supply side resources

Market structure

- Unbundle the value chain from resource ownership/control and production through to consumption, & ensure ownership is diverse, competitive, and separated at each point of the value chain
- Lower barriers to entry in all segments of the value chain
- Restrict the capacity of any one entity, joint venture, or partnership to control a large or dominating share of reserves, while promoting entry of new competitors from the point of resource control and extraction
- Actively facilitate the entry of new competitors and break down of existing concentration
- Ensure there is sufficient network capacity in existence and in development, with non-discriminatory access to promote confidence and competition
- Achieve transparency of information (volume, utilisation) & pricing, in markets at each point along the chain
- Provide access by third parties to processing facilities
- Regulation of all pipelines participating in a market for the supply of gas to the Australian market to promote a competitive framework within constraints of the natural monopoly
- The establishment of a gas hub and a gas price exchange with spot and futures markets that facilitate price discovery and provides a reliable price signal is a key attribute of a competitive natural gas market.[1]
    - ➢ Development of the most liquid and competitive gas hub market with hub pricing, to facilitate price discovery through the designation of the most viable and potentially competitive hub reflecting supply and demand of gas in the domestic market.
    - ➢ Facilitate development of traded gas price futures on a Sydney exchange to provide long term pricing, and the potential for price risk management by suppliers and consumers.
    - ➢ Involvement of financial institutions as providers of liquidity and trading services
- Promote competitive and deeper public markets at each point along the chain by:
    - ➢ Mandating clear separate ownership of resources, pipelines, distribution, & retailing
    - ➢ Resource "owners" should be separated from ownership of storage, pipelines and end market distribution & sales – only transport to designated pipeline hubs via open access arrangements.
    - ➢ Resource explorers and owners should be subject to use it or lose it provisions – return of unexplored acreage after [3] years and undeveloped acreage after a further 3 years. Too frequently permitted entities sit on potential gas fields that others may

wish to develop, preventing the development of a competitive market. The concept is to ensure gas fields are developed, there are a number of competitive potential suppliers, and that affordable gas is available to the domestic market.

- Charging fees for sitting on undeveloped acreage where there is no current development approval in train – effectively a storage cost – supported by a 'use it or lose it regime' to encourage economic development and the entrance of new resource developers and suppliers. Australia has been attractive to some parties who can hold their Australian assets while developing those in other economies where there is a risk of losing their acreage.
- Resource developer must sell at closest designated hubs – open access markets for buyers to bid, must be non-discriminatory
- Pipeline transport pricing should be fair and non-discriminatory, determined using a published benchmark price for the injection and withdrawal points; open access via electronic markets provided to all market participants; participants requiring shipping can price and book transport off the electronic market
- Pipelines and networks should be designated assets of national importance as a key step to equality of access. Non-discriminatory and open access to networks, and sufficient network capacity available to all market participants will inhibit the development of 'island' that behave according to their own supply/demand dynamics within the network.
- Genuine shippers of gas who are holding spare capacity to have full rights to trade pipeline capacity among other shippers
- Gas is delivered, priced and traded at the designated hub closest to the well head, and must be published against a benchmark price. This will require the establishment of additional hubs, including one at Moomba. As further pipelines and supplies are developed other hubs can be added to the market place.
- Resource owners or retailers unable to restrict the re-sale of unused / no longer required gas by purchasers.
- Pipeline owners cannot integrate, either back into resources, nor forward into market distribution
- Where gas is sold by a retailer, the transport component must be identified and priced separately, with customers able to negotiate their own pipeline access if preferred
- Gas end-users with sufficient volumes and willingness to invest in the logistics & risk management should be able to price each point in the value chain based on their requirements
- Storage facilities –storage facilities should be owned independently to prevent gaming of the market by gas owners. Storage capacity should entail biddable transparent access to avoid 'cornering' or manipulation of the market; long term storage market available facility should not be owned by gas developer/ owners or transporters. The market is also subject to manipulation by gas owners/producers who "store" gas or fail to produce to game the market.
- Transporter pipelines
  - Independence of pipelines from supply and network is essential, as is a clear and unbiased investment regime based on a well developed and regulated code of conduct.
  - Pricing set via regulated maximums and minimums, for each injection & withdrawal point

        - Open trading market promoted and available – market liquidity improved by facilitating wide access to the pipeline, in standardised marketable parcels
        - No capacity “sitting” – ie no ‘buy & hold’ capacity purchasing by non-shippers, although broking or short term warehousing may be acceptable if it promotes liquidity
        - End-users / Customers who wish to arrange own access to pipelines should be freely and readily able to do so – pipeline owners should provide open & non-discriminatory access
    - Distribution networks
        - As a natural monopoly, retailers should not own distribution networks and pipelines just as the reverse should also apply– full value chain separation is required
        - Retailers & gas users must be able to book capacity via an open access regime as desired.
        - Pricing set via regulated maximums and minimums
    - Retail competition – potential new participants must have real options to enter the retail market at every level, from consumer to large commercial
        - The preferred model is to develop an efficient market with many resource owners bidding into a liquid market. Similarly, for consumers to have choice of retail supplier – essentially they organise the logistics of supply, enter into long term contracts for gas, transport, & local distribution, but don’t own any local distribution
- Reporting & disclosure requirements, daily/monthly/quarterly/ annual obligations
    - Sales volumes & prices at the hub daily
    - Facilities - quarterly
    - Large contracts – quarterly
    - Reserves – annually
- Full retail choice programme – natural gas customers should be able to purchase their gas from a choice of retailer, which will have open access to the local distribution network. While this occurs in Victoria to some extent, in NSW the choice is very limited.
- A published and regulated code of conduct
- Promote the involvement of financial institutions as financiers and investors, providers of cash flow liquidity for market participants in addition to liquidity providers and promoters of hub pricing.
- The ingredients for a competitive and functioning market need to be instigated and guaranteed by the market regulator.

Market structure – Creating a Natural Gas Hub

- To provide a “meeting place” for supply & demand, a platform or hub for exchange is needed. Ownership exchange at the hub is key. A physical hub is a geographical point in the network where a price is set for natural gas delivered on that specific location.[1] To be viable, the hub must represent the most logical place for ownership to change hands: the most centrally located and sufficiently interconnected point for the exchange to take place.
- Hub pricing facilitates efficient and transparent price discovery, and provides the building blocks for long term exchange & OTC contracted pricing. It also offers the incidental benefit of supporting Sydney’s role as a financial centre in the region.

- The physical hub that meets the key characteristics from which to build a viable and successful trading hub is Moomba, being the closest point to 1. The most relevant gas fields combined with 2. multi-directional intersecting pipelines.
- We note that Wallumbilla is very distant from the natural exchange point for domestic markets, which would be as close as possible to relevant gas fields and multi-directional intersecting pipelines. and would in fact, require significant backhauling for domestic purposes.
- In our view, even if Wallumbilla is anointed by government, if it does not have the characteristics of a successful market hub, it will not develop, regardless of the desire to make it so. We note that the highly successful Henry Hub market place was selected by the New York Mercantile Exchange (NYMEX), not regulators or suppliers.
- We note there is no reason why there cannot be smaller, regional hubs and seen in the US, and Wallumbilla may well be an appropriate hub for the export industry for a spot market or short term exchange.
- Other markets use equally successful "virtual hubs", but the delivery characteristics of the product are fundamental, and must be transparent but not overly complex ie related to the place of ownership exchange and considering transport costs to that point. That can add considerable complexities in a market such as east coast Australia, which will be domestically supplied (we expect) from a few major fields.

Transitional: Measures:

Measures as proposed will need to be implemented over time, not overnight even though there is an urgency to deal with the issues.

We propose as a precursor to fundamental reform:

- Establish a National Gas Authority
  This could have the characteristics of the Gas Commissioner model recommended by the Victorian Task Force and as implemented in Queensland. The Authority would work towards the development of effective gas markets as outlined and development of a gas industry which balances the export opportunity and domestic requirements. The Authority would have a policy component and an education component to smooth resource development.
- A published and regulated code of conduct signed up to by industry participants
- 3 to 5 year plan with milestones along the way towards a transparent and competitive market
- Registering of 'booked' volume by destination market
- Export licencing for both gas resource and LNG plants, potentially as an interim measure until domestic markets are fully functioning and ownership concentration issues are dealt with
- "Chinese walls" required immediately between production, transport, & markets functions as a prelude to splitting functions
- To proceed immediately:
  - ➢ Removal of all joint marketing arrangements and rights as proposed in 2002 in the Parer Report.
  - ➢ Reporting & disclosure

- Mandated transparent hub pricing
- Cannot allocate to internal marketing arm or affiliates ahead of other bidders. Disclosed bidding and allocation to internal markets.
- Internal markets or affiliates in no way to have an advantage
- Maximum levels of resource ownership and control implemented, with grandfathering of existing permitting only as an interim measure
- Export licencing until a competitive market structure is in place.

In summary

The preferred model from a consumer angle is to have many resource owners bidding into a liquid market. Similarly, for consumers to have choice of retail supplier whereby they can if they choose to organise the logistics of supply, enter into long term contracts for gas, transport, & local distribution, but don't need to have any ownership down the chain.

There are many more measures that can be taken within the Federal jurisdiction and in conjunction with the States to reform these broken and oligopolistic markets.

Notes

1. International Energy Agency, Developing a Natural Gas Trading Hub in Asia, Obstacles & Opportunities 2013