

DOWNSTREAM GAS SUPPLY AND AVAILABILITY IN NSW

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The Committee Manager
State and Regional Development Committee
Parliament House
Macquarie Street
SYDNEY NSW 2000

Re: Downstream Gas Supply and Availability in NSW (Inquiry)

The Australian Petroleum Production and Exploration Association (**APPEA**) welcomes the opportunity to provide comment on the Downstream Gas Supply and Availability Inquiry in NSW and looks forward to working with the Committee.

APPEA is the peak national body representing the oil and gas exploration and production industry, including the coal seam gas and liquefied natural gas industries. Collectively our membership accounts for around 98 per cent of Australia's oil and gas production.

We look forward to working with the State and Regional Development Committee while you consider the submissions. Please do not hesitate to contact Ryan Bondar, Senior Policy Adviser on [REDACTED] if you would like further information.

Yours sincerely

[REDACTED]

Rick Wilkinson

CHIEF OPERATING OFFICER – EASTERN REGION



AUSTRALIAN PETROLEUM PRODUCTION & EXPLORATION
ASSOCIATION LIMITED

DOWNSTREAM GAS SUPPLY AND AVAILABILITY IN NSW

APPEA Submission

JUNE 2013



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1. EXECUTIVE SUMMARY

The Australian Petroleum Production and Exploration Association (**APPEA**) welcomes the opportunity to provide a submission on the Downstream Gas Supply and Availability Inquiry.

NSW is competing for gas with other states at a time of constrained supply. With little indigenous gas development, NSW households and industry will be at a disadvantage. At this time of pressing need for new gas supply, exploration and development in NSW, the regulatory burden has increased significantly.

NSW has vast gas reserves and resources, however given recent NSW Government announcements and policy positions, including the buffer zone, this would sterilise a large proportion of identified gas resources, eliminating years of potential gas supply to the state.

Natural CSG has the potential to become an important part of the energy supply mix in NSW, reducing the state's reliance on interstate gas imports and improving energy supply security. A growing CSG sector in NSW would deliver significant economic benefits to the state and to the nation.

This submission will address some of the terms of reference; however we will not provide comment on terms that are outside of our scope. APPEA will highlight a number of key points, including:

- Without a secure, reliable indigenous gas supply for NSW there are negative implications for the market, particularly in terms of price.
- In order to limit these negative implications, NSW needs to develop and invest in a material indigenous gas supply.
- The industry needs investment certainty and a priority support which recognises that NSW is facing a looming gas supply challenge.
- Consistent regulation and certainty for the upstream industry will ensure gas supply into the state and will help ease the pressure on a constrained gas market.

2. OVERVIEW

Over the past ten years, a major CSG industry has emerged in Queensland. CSG production in that state now accounts for more than 30 per cent of all the natural gas produced in eastern Australia. While the CSG industry in Queensland has grown strongly over the past decade, the next few years will see a fundamental transformation in CSG production with three large-scale liquefied natural gas (LNG) production facilities and associated infrastructure now under construction in Central Queensland. These facilities will be capable of producing approx. 25 million tonnes per annum (Mtpa) of LNG from CSG feed and will transform the eastern Australian gas sector—until now entirely focused on domestic supply—by establishing a major export industry worth billions per year.

NSW has geological systems comparable to those that host the major CSG resources in Queensland: extensive Permian and Jurassic coal measure sequences (the Sydney, Gunnedah and Gloucester Basins correlating with the Bowen and Galilee Basins in

Queensland; and the Clarence Moreton Basin a geological analogue for the Surat Basin in Queensland).

However CSG exploration and development activity in NSW has so far not achieved anything like the level of success seen in Queensland. More than 20 years of exploration activity has clearly established that there are very large *in situ* resources of CSG in New South Wales and that these resources have the potential to support a large-scale CSG production industry. However, commercial production rates remain low, with CSG currently contributing less than 5 per cent of the State's total gas requirements.

As at May 2013, proven and probable (2P) reserves of CSG in NSW stood at 2,822 petajoules (PJ) with proven, probable and possible (3P) reserves of 7,008 PJ¹. NSW currently consumes 160 PJ/a of natural gas. Hence the current 2P reserves of CSG in NSW would be sufficient to fully supply the state for approximately 17 years supply; while the 3P reserves represent approximately 43 years supply.

In April 2013 the Independent Pricing and Regulatory Tribunal (IPART) released its draft report on the Review of Regulated Retail Prices and Charges for Gas, 2013 to 2016. IPART is responsible for regulation of gas prices in NSW.

Without an increased domestic gas supply there will be further increased pressure on household and business gas prices over the short term. IPART states that *"Depending on how the [CSG] industry develops, this may increase the domestic gas supply sufficiently to put downward pressure on wholesale gas costs over the 2013 regulatory period."*²

3. COMMENTS ON THE TERMS OF REFERENCE

a) The adequacy of transmission pipeline systems and distribution networks for future downstream gas needs and supply challenges.

NSW remains heavily reliant for its supplies of natural gas through pipeline imports, principally from Moomba in South Australia via the Moomba to Sydney Pipeline, and from Longford in Victoria via the Eastern Gas Pipeline. All but approximately 6 PJ of gas delivered to NSW and the Australian Capital Territory in 2012 via pipelines registered on the National Gas Market Bulletin Board was imported. The 6 PJ of local gas supply was all CSG.

NSW has a sophisticated pipeline structure that has existed to serve the state for a number of years. However it is important to recognise that delivering gas to households via pipelines adds considerable costs for the consumer, and there is always the risk of reliability with these pipelines. The only way to limit the risks downstream is to ensure a diversity of supply into the state, through a combination of pipelines as well as a secure, reliable indigenous gas supply for NSW.

There is no shortage of gas in the ground, especially on the east coast of NSW, however getting this gas to market, especially during peak demands, is still a concern. The Grattan Institute in its recent report, 'Getting Gas Right: Australia's energy challenge' says, *"The ability to transport gas between major markets is limited to the capacity of pipelines that connect the*

¹ EnergyQuest, Energy Quarterly May 2013, Table 13, page 34

² IPART Review of regulated retail prices and charges for gas, 2013 to 2016, page 17

markets. Investment in new pipelines is expensive and may not be economically justified but it may be possible to use existing infrastructure more effectively. Improving access to pipeline capacity would assist to improve competition in east coast markets.”³

Given that NSW relies on gas imports from other states, through pipelines, during a high peak demand day when gas usage is high, this leaves NSW exposed to a possible supply constraint. These possible supply constraints are likely if there is a ‘no-development’ scenario on CSG in NSW, however, as pointed out in the Grattan Institute report: *“If coal seam gas can be developed, it could produce more than enough gas to meet the additional gas demand in New South Wales on a peak day.”⁴*

Gas is used for both commercial and residential uses, as well as power generation. Gas usage has been increasing steadily over the last decade and it is expected that the demand for gas, especially during peak times will continue, *“NSW winter peak day gas demand is forecast to increase by 480TJ to over 1,100TJ by 2020.”⁵*

It is important to note that without CSG production or an increase in the pipeline capacity into NSW there is likely to be an increase cost to the consumer for gas. *“Ensuring security of gas supply for NSW electricity generation will require bringing the State’s CSG reserves into production and/or the expansion of transmission pipeline capacity from interstate”.*⁶

New pipelines and expansions

If NSW proceeds with developing the vast gas reserves and resources in this state it is important to recognise that this will require additional investment on transmission and distribution systems to ensure the gas can be brought to market.

The Standing Council on Energy and Resources (SCER) agreed in 2012 to an Australian Gas Market Development Plan. The aim was to combine a number of new initiatives to pursue two key policy principles:

- 1) ensuring supply can respond flexibly to market conditions; and
- 2) promoting market development. SCER noted progress made towards key Gas Market Development Plan initiatives: gas supply hub implementation; a gas transmission pipeline capacity trade consultation RIS; and work under way to continue the development of efficient gas markets.⁷

At this meeting, *“SCER welcomed the release by officials of a consultation Regulation Impact Statement (RIS) that examines the case for improving the trade in gas transmission pipeline capacity in the eastern Australian gas market. The RIS explores a range of policy options that could facilitate increased trade in pipeline capacity, which may improve the efficiency of use of gas pipeline infrastructure and complement the operation of the Gas Trading Exchange.”⁸*

The table below shows the gas markets in Australia and associated infrastructure, including pipelines and proposed pipelines. The table shows NSW producing 6 PJ of gas and relying

³ Grattan Institute 2013, Getting Gas Right: Australia’s Energy Challenge, page 22

⁴ Grattan Institute 2013, Getting Gas Right: Australia’s Energy Challenge, page 30

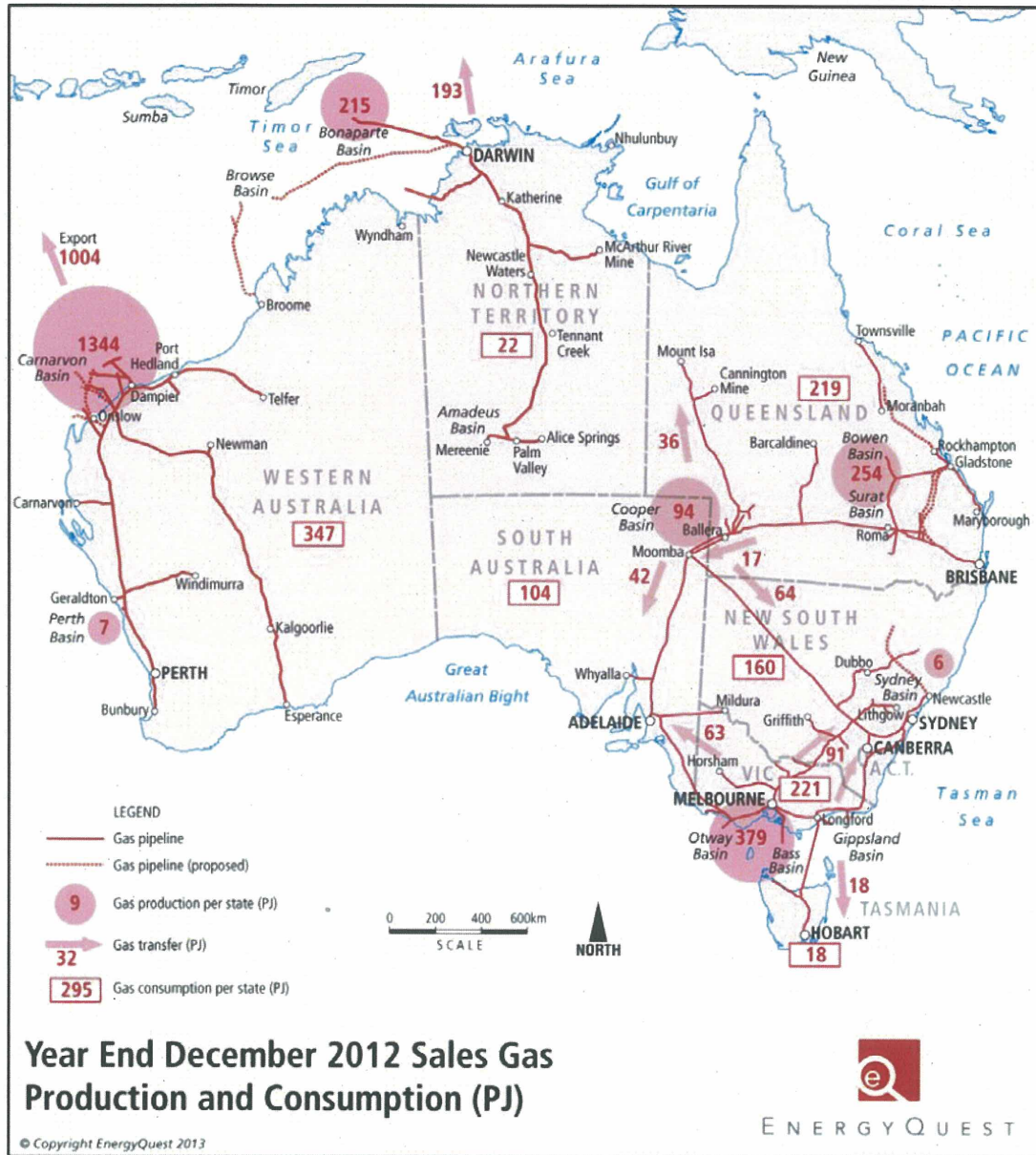
⁵ NSW Parliamentary Inquiry Report into Coal Seam Gas Government Submission, page 11 quoting figures from “2010 GSOO Figure 5-29 page 139”

⁶ NSW Parliamentary Inquiry Report into Coal Seam Gas Government Submission, page 17

⁷ Standing Council on Energy and Resources, Meeting Communiqué, Brisbane 31 May, 2013

⁸ Standing Council on Energy and Resources, Meeting Communiqué, Brisbane 31 May, 2013

on importing the remainder of gas given our consumption of 160PJ. To best manage future gas needs and potential supply challenges it is important that NSW adds diversity to the gas market by increasing local production, considering gas storage facilities as well as utilising existing pipelines.



⁹ EnergyQuest, Energy Quarterly February 2013, Sales gas production and consumption by state, year-end 2012, figure 41, page 99.

b) barriers to the expansion of downstream gas supply and distribution networks;

With the recent expansion of the CSG industry in Queensland, and an increase in exploration activity in NSW, the industry has become the centre of considerable public attention. Landowners and other interest groups have raised concerns about a number of aspects of the industry including its potential effect on agricultural land use; impacts on groundwater resources and aquifers; issues relating to the storage and disposal of formation water; CSG drilling and completion practices including hydraulic fracturing (“fracking”) and the possible health effects of chemicals used in the fracking process.

In response a Parliamentary Inquiry was conducted into the environmental, economic and social impacts of CSG activities during 2011-12. The Inquiry submitted its final report, including 35 recommendations, in May 2012¹⁰.

The NSW Government responses to the report and its recommendations were published in November 2012, but not before the government had introduced a Strategic Regional Land Use Policy that *“implements or proposes more effective alternatives to many of the recommendations of the Committee”*. This policy package included changes to the regulation of CSG exploration activities including mandatory community consultation requirements; creation of a Land and Water Commissioner with oversight of exploration licence processes; tighter controls over “Strategic Agricultural Land”, a state-wide Aquifer Interference Policy; requirements for Agricultural Impact Statements for CSG exploration and development; and new Codes of Practice in relation to well integrity and hydraulic fracturing.

Subsequently, in February 2013 the NSW government introduced further measures to regulate the CSG industry in New South Wales, including designation of the Environmental Protection Agency as the lead regulator for environmental and health impacts of CSG activities; requirements for all CSG titles and activities to hold an Environment Protection Licence; imposition of a 2-kilometre exclusion zone around residential zones and “critical industry clusters” to prevent new CSG activities in these areas. The NSW government has released draft amendments to the State Environmental Planning Policy (SEPP) governing mining in order to give effect to the 2-kilometre exclusion zone arrangements.

As a result the regulatory environment for the Natural CSG sector in NSW is now subject to the strictest regulations in Australia. The natural CSG industry is now overseen by agencies including the Environment Protection Authority, the NSW Chief Scientist & Engineer, the Land and Water Commissioner, the Office of Coal Seam Gas, NSW Planning and Infrastructure and NSW Office of Water. The industry acknowledges the role the Government has played to date, we also note that transparent and effective regulation is a key component of building trust with communities.

However, the multiple changes of regulations in a short time frame as illustrated above, is a deterrent to investment. Consistent regulations will help ensure the barriers to the expansion of downstream gas supply and distribution networks are minimal. The exploration industry needs certainty in terms of regulation to encourage investment in exploration and production, pipeline infrastructure and storage facilities.

¹⁰ New South Wales Parliament Legislative Council General Purpose Standing Committee No. 5 Inquiry into coal seam gas / General Purpose Standing Committee No. 5 [Sydney, N S W] : The Committee, 2012 – xxi, 330 p ; 30 cm (Report No. 35)

c) the effectiveness of competition in the downstream gas market and consumer pricing implications;

The NSW gas market has a number of retailers that offer effective competition for NSW customers. These retailers provide gas for almost 1.1 million households and businesses in NSW.

The downstream market is relatively competitive in NSW as the players operate from those who are just energy retailers (eg EnergyAustralia), those who operate in the upstream and downstream markets (eg AGL, Origin) and those who don't sell to the retail market (eg Santos). It is this combination and diverse nature of retailers that provide strong competition for the end user in NSW.

IPART in its final report on the Review of Regulated Retail Prices and Charges for Gas made the point that in the past few years the market has changed considerably and this has included the competition in the retail gas market. It went on to state that *"Based on our analysis for this report, we consider it likely that competition in the market is now effective enough to provide sufficient protection to customers, as well as offering more choices and better price and service outcomes"*¹¹

The Australian Energy Market Commission (AEMO) has also released a draft report following a Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales. The final report is due to be released later in 2013, however it highlights that competition in NSW is sufficient *"We have found that competition in the electricity and natural gas markets for small customers in NSW is delivering benefits to customers"*¹²

In addition to competitiveness between retailers there is also competition between alternative fuel sources. There is also competition in NSW for customers with a connection to both gas and electricity. Gas can be used to provide alternative fuel sources in the home (mainly for heating and cooking) but can also be used to help meet peak electricity demand through gas fired power stations. There is also a short term trading market that exists for gas, operated by the Australian Energy Market Operator that sets daily market prices, ensuring competition in the sector.

Despite the strong competition that currently exists for customers in NSW, this may not optimise price outcomes if there is inadequate supply into NSW. The key way to address this is to ensure increased production of CSG in NSW.

On 13 June 2013, APPEA released (jointly with the Australian Industry Group and the Australian Workers' Union) an ACIL Allen Consulting report, *NSW Coal Seam Gas: Potential Economic significance of Coal Seam Gas in New South Wales*¹³, highlighting the potential economic significance of CSG in NSW. One finding of this report was that under a "CSG Freeze" Scenario wholesale gas prices between 25 per cent per cent and 32 per cent per cent higher in NSW.

¹¹ Review of regulated retail prices and charges for gas IPART, Final Report, June 2013

¹² Australian Energy Market Commission, Review of Competition in the Retail Electricity and Natural Gas Markets in New South Wales, Draft Report 23 May 2013

¹³ ACIL Allen Consulting (2013), *NSW Coal Seam Gas: Potential Economic significance of Coal Seam Gas in New South Wales*, 29 May (available at www.appea.com.au/wp-content/uploads/2013/06/27303-NSW-CSG-Report-20130529.pdf)

4. CONCLUSIONS

The East Coast gas market in Australia has been generally stable over the past decade underpinned by long term gas supply agreements. However, this scenario will change when Eastern Australia starts exporting gas.

In NSW alone, according to the NSW Government's own submission to the recent NSW Parliamentary Inquiry, *"Under a forecast medium growth scenario, over the next 20 years gas demand in NSW is forecast to more than triple to around 550PJ per annum, at an average annual growth rate of 6.9%."*¹⁴

In an era when Eastern Australia energy markets are undergoing enormous changes, the CSG industry represents an historic opportunity to achieve a secure, reliable indigenous gas supply for NSW. While the demand pressures continue to exist, unless NSW develops its own supply, the price and economic implications are serious.

While we support the NSW Government's initiatives to ensure that land and water resources are protected and that the CSG sector has the support of communities, inconsistent policies and a constant "shifting of the goalposts" continues to add uncertainty to investors and operators. The gas market in NSW is already constrained and this will be felt more heavily in the coming years. APPEA is concerned that without domestic gas supply in NSW, the already constrained market will be an economic burden on households and businesses in NSW unless we can increase supply through a local CSG industry.

¹⁴ NSW Parliamentary Inquiry Report into Coal Seam Gas Government Submission, page 10