the voice of australia's oil and gas industry

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INTRODUCTION

The Australian Petroleum Production & Exploration Association (APPEA) is the peak national body representing the upstream oil and gas exploration and production industry. APPEA has more than 80 full member companies comprising oil and gas explorers and producers active in Australia. APPEA members account for an estimated 98 per cent of the nation's petroleum production. APPEA also represents more than 250 associate member companies that provide a wide range of goods and services to the upstream oil and gas industry. Further information about APPEA can be found on our website, at www.appea.com.au.

APPEA welcomes the opportunity to provide comment on the Australian Competition and Consumer Commission (ACCC) East Coast Gas Inquiry *Issues Paper* (the *Issues Paper*).

In addition to the APPEA submission, a number of APPEA members have made individual submissions providing comment on the *Issues Paper*. This response should be read in conjunction with submissions from individual APPEA members.

APPEA's submission addresses specific aspects of the *Issues Paper*, focussing on those areas that are particularly important for the upstream oil and gas industry.

THE AUSTRALIAN UPSTREAM OIL AND GAS INDUSTRY

The *Issues Paper* should have regard to the significant and growing contribution of the upstream oil and gas industry to the Australian economy and to the welfare of all Australians. Reliable, secure and competitively priced energy is crucial to our everyday lives in Australia. Within this framework, oil and gas plays a key role in meeting many of our energy needs.

> Australia has vast gas resources, sufficient to supply domestic and export markets for decades.
>
> Geoscience Australia[1] estimates that Australia's total gas resources are about 819 trillion cubic feet (tcf) or 900,500 petajoules (PJ).
>
> By comparison, Australia's production of natural gas in 2013-14 (including exports) was around 2 tcf or 2,200PJ.
>
> Geoscience Australia and the Australian Council of Learned Academies[2] estimate that Eastern Australia has gas reserves and resources totalling over 407,000PJ.
>
> By comparison, Eastern Australia's production of natural gas in 2013-14 was around 700PJ[3].

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[1] Geoscience Australia, Department of Industry and Bureau of Resources and Energy Economics (2014), *Australian Energy Resource Assessment: Second Edition*, page 97 (available at www.ga.gov.au/metadata-gateway/metadata/record/gcat_fa6d674d-ecbb-6629-e044-00144fdd4fa6/Australian+Energy+Resource+Assessment+-+Second+Edition).
[2] Australian Council of Learned Academies (2013), *Engineering energy: unconventional gas production*, 4 June (available at www.acola.org.au/index.php/projects/securing-australia-s-future/project-6).
[3] See Australian Energy Market Operator (2014), *National Gas Forecasting Report*, 17 December (available at www.aemo.com.au/Gas/Planning/Forecasting/National-Gas-Forecasting-Report).

Our abundant natural gas resources mean Australia is well placed to contribute to global energy security and to reducing global greenhouse gas emissions.

The industry also creates significant wealth for Australia, employing many Australians, underpinning the revenue of governments and generating valuable export revenue.

Across Australia, almost $200 billion is being invested in oil and gas projects including seven major liquefied natural gas (LNG) export projects that will add to the three LNG projects under operation[4].

Australia's oil and gas industry has underpinned much of Australia's economic prosperity and growth since for decades. A recent PwC report, *Value Adding: Australian Oil and Gas Industry*[5], shows that:

- The oil and gas industry directly accounts for around 2 per cent of GDP, with value-added of about $32 billion in 2012-13.
- The contribution of the oil and gas and exploration sectors is projected to double to about $53 billion in 2019-20 and $67 billion in 2029-30.
- The value of natural gas exports (already Australia's third largest export, after iron ore and coal) is expected to be $60-70 billion by 2019.
- After accounting for its inter-linkages with the rest of the economy (companies all over Australia are supply goods and services to the oil and gas industry, and the use of fly-in, fly-out staffing is spreading the benefits of the industry) the sector is projected to be around 3.5 per cent of national output in 2030.

By 2020, the sector's economic contribution will more than double to $70 billion and taxation paid will rise from $8.8 billion in 2012 ($4.9 billion in corporate taxes and $3.8 billion in production taxes) to reach almost $13 billion.

The stakes are high in realising the industry's potential benefits. It is vital that the Inquiry and any subsequent policy or regulatory changes do not jeopardise the growth of a prosperous and vibrant upstream oil and gas industry.

GENERAL COMMENTS ON THE *ISSUES PAPER*

The Inquiry is occurring at an important time in the evolution of the East Coast gas market. Claims that "the market is not working" or "there is no gas available at any price" have become an unfortunate feature of the discussion around domestic gas issues. The ACCC's focus on testing such assertions is welcome.

At the same time, APPEA would urge the Inquiry not to overlook the policy failures which threaten to distort the market in ways damaging to users and producers alike. APPEA believes that, while

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[4] See Department of Industry (Office of the Chief Economist) (2015), *Resources and Energy Major Projects*, for a listing of upstream oil and gas projects at the Publicly Announced Stage, Feasibility Stage, Committed Stage and Completed Stage (available at industry.gov.au/Office-of-the-Chief-Economist/Publications/Pages/Resources-and-energy-major-projects.aspx).
[5] PwC (2014), *Value-adding: Australian Oil and Gas Industry,* pages 28-29 (available at www.appea.com.au/wp-content/uploads/2014/11/PwC-Report-Oil-and-Gas-Industry-Sept-2014-FINAL.pdf).

there may be opportunities to improve aspects of the market, the most significant obstacles to more competition and downward pressure on prices are the onerous regulatory restrictions in some jurisdictions (notably New South Wales and Victoria) that impede gas supply. Policies which restrict exploration, resource development and supply risk creating an artificial shortage of gas and higher prices. The Inquiry must support and reinforce the removal of regulatory restrictions impeding the efficient functioning of the East Coast gas market. This issue is considered further below.

Australia's gas supply industry serves both domestic and export markets. Manufacturers are among the industry's most important customers and it has a stake in a vibrant Australian manufacturing sector. The industry understands the competitive pressures faced by trade-exposed industries; the upstream oil and gas sector also operates in a competitive global market. There is no doubt that, for various reasons, many manufacturing businesses are under acute pressure. However, APPEA does not support policies which would seek to assist one industry at the expense of another. Australian governments have, rightly, recognised that the best policy response is to focus on initiatives that boost productivity and encourage investment, including via lower tax burdens, efficient regulation, ongoing investment in skills, and greater labour market flexibility. Such policies will give all industries – including the manufacturing sector – the best chance to succeed.

It is vitally important that the Inquiry, and the Government's response to it, focus on the development of Eastern Australia's upstream oil and gas industry and not be distracted by calls for inappropriate, inefficient and protectionist interventions in the domestic gas market.

APPEA notes that the Eastern Australia gas market is an evolving market. Over the last ten years, the market has been characterised by substantial new investment, the entry of new businesses and increasing flexibility.

For example, following industry-led developments through the Gas Market Leaders Group, of which APPEA members were key participants, the gas short-term trading market (STTM) was implemented in Adelaide and Sydney in September 2010 and in Brisbane in December 2011. These three hubs now have nearly thirty participants (shippers, users and pipeline owners) trading on the market. The Wallumbilla Gas Supply Hub was introduced in March 2014 and now has nine participants that buy and sell gas at interconnecting transmission pipelines.

In addition, as the *Eastern Australian Domestic Gas Market Study*[6] noted, in 2006, the top three producers (the Gippsland Joint Venture, Santos and Origin Energy) produced nearly 85 per cent of eastern Australia's gas. By 2013, the top three producers accounted for 62 per cent of gas production, and Asia-Pacific LNG (APLNG) had become the second largest supplier behind the Gippsland Joint Venture. Overall, the number of companies with production has remained relatively stable at around 20, and there continues to be a larger number of smaller companies involved in exploration that are yet to bring gas resources into production.

[6] See www.industry.gov.au/Energy/EnergyMarkets/GasMarketDevelopment/Pages/EasternAustralianDomesticGasMarketStudy.aspx for further information.

In the case of gas reserves, in 2006, the Gippsland Joint Venture controlled nearly 40 per cent of 2P (proved and probable) reserves in eastern Australia. In 2013, that proportion had dropped to around 7 per cent. The key factor has been the growth in onshore gas reserves, both in Queensland as a result of the LNG developments and in New South Wales, where there is potential for onshore gas developments to supply significant quantities of gas. This has seen a range of new participants, both international oil companies and smaller local companies, enter the market.

This means that in 2015, the market is more sophisticated, efficient and transparent than it has ever been. These changes have often been driven by industry initiatives as businesses identify and pursue emerging opportunities. On the other hand, the relatively small scale of the market imposes some limits on how the market operates and how quickly it may evolve. Comparisons with the US and other markets risk overlooking important differences. The use of bilateral contracts, for example, has long been supported by buyers as much as sellers for various sound, commercial reasons. The range and pace of these market developments is not always readily apparent to people who have not been directly involved in the market over the last decade.

Forcing the pace of change in the market needs to be approached carefully. APPEA does not support reform options being pursued just for the sake of reform, but rather to ensure gas is developed and allowed to flow to its highest value use, thus providing the greatest return to the ultimate owner of the resource, the Australian community.

SPECIFIC COMMENTS ON THE *ISSUES PAPER*

With that in mind, APPEA offers the following comments on those aspects of the *Issues Paper* of most interest/relevance to the Australian upstream oil and gas industry.

In most sections, APPEA has provided answers to each of the questions posed in the relevant section of the *Issues Paper*. In other sections, we have offered general comments. APPEA is not in a position to answer every question posed in the *Issues Paper*.

CHANGES AFFECTING THE DOMESTIC GAS INDUSTRY

Questions on changes affecting the domestic gas industry

2. Are gas suppliers in Eastern Australia likely to meet both LNG export commitments and domestic gas demand over the life of the LNG projects, given the gas reserves base and the expected gas production schedule? Explain why or why not.

Yes. Each of the project proponents has indicated that they are confident that all LNG and domestic gas supply commitments will be met.

As every recent study of the East Coast gas market has confirmed, Australia (including Eastern Australia) has vast resources of natural gas.

For example, Geoscience Australia and the Australian Council of Learned Academies have estimated that Eastern Australia has gas reserves and resources totalling over 407,000PJ.

By way of comparison, Eastern Australia's production of natural gas in 2013-14 was around 700PJ, meaning Eastern Australia has <u>more than enough gas to service both domestic and export markets for decades</u>.

3. *Are there currently any factors that are significantly restricting or limiting the ability or incentive for gas producers to explore for, or develop, new gas reserves? If so, explain.*

Yes. This is one of the key issues for the Inquiry. It is not a lack of natural gas but onerous regulatory restrictions in some jurisdictions (notably New South Wales and Victoria) that are impeding gas supply.

Removing these unnecessary constraints would be the single most important step governments can take to put downward pressure on prices, enhance competition and stimulate supply.

Any outcomes from this Inquiry must support and reinforce the removal of regulatory restrictions impeding the efficient functioning of the East Coast gas market.

In the case of Victoria, moratoriums on exploration and hydraulic fracturing mean that no exploration and no production for gas can occur in Victoria[7]. A moratorium on the use of hydraulic fracturing is in place in Tasmania[8].

In New South Wales, the New South Wales Gas Plan[9] places regulatory limits on potential production areas and the NSW Government is 'buying back' licences to remove areas as potential sources of future production.

These regulatory barriers both directly, through their application, and indirectly, through the signal they send to potential investors, place very clear restrictions on the ability and incentive for gas producers to explore for, or develop, new gas reserves and resources.

Recommending the removal of regulatory barriers to exploration and development would be the clearest and most positive recommendation the Inquiry could make.

5. *Has the development of LNG export facilities created opportunities for gas suppliers to exercise market power in any location in Eastern Australia? If so, explain where and how.*

APPEA is not aware of any evidence that would suggest the development of LNG export facilities has created opportunities for gas suppliers to exercise market power in Eastern Australia.

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[7] See onshoregas.vic.gov.au/about-onshore-gas for more information. The Victorian Government has launched a Parliamentary Inquiry into unconventional gas exploration and extraction (www.parliament.vic.gov.au/epc/inquiry/406). The hold, or moratorium, on new exploration licences and tenements for onshore gas, hydraulic fracturing and exploration drilling will remain in place, pending the conduct of the Parliamentary Inquiry and subsequent Government response.

[8] See dpipwe.tas.gov.au/about-the-department/government-policy-on-hydraulic-fracturing-(fracking)-in-tasmania for further information. The Tasmanian Government has put in place a moratorium on the use of hydraulic fracturing for the purposes of hydrocarbon resource extraction until March 2020.

[9] See www.nsw.gov.au/nsw-gas-plan. Action 4 under the Gas Plan commits the NSW Government to a one-off buy back of Petroleum Exploration Licences from to existing title holders across the state. This provides for holders of petroleum exploration licences to surrender their titles in exchange for limited compensation. To date, the NSW Government has bought back and cancelled 12 petroleum exploration licences under the program. See www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/community/information-on-petroleum-titles/buy-back-scheme for more information.

ACCESS TO NEW GAS RESERVES

Questions on access to new gas reserves

9. Do exploration title regimes and their administration facilitate behaviours that limit competition through denying new entrants? If so, explain how.

Processes for the release of petroleum exploration acreage with Australian jurisdictions are transparent and relatively well understood by all potential entrants. Governments widely promote the release of acreage (including to overseas developers) and permits are generally awarded on either a work program bidding or cash-bidding basis. 'Over the counter' awarding of acreage is not common in Australia. Bidders are given extended periods to lodge applications.

Governments assess the financial and technical competency of bidders before awarding acreage. APPEA is not aware of any barriers that exist with the titling regime that would restrict new entrants. Obviously, moratoriums or restrictions on the granting of new exploration licences denies all possible entrants the opportunity to access exploration acreage.

10. Are you aware of any specific instances where industry participants have used regulatory processes or title regimes to impede new entrants?

APPEA is not aware of specific instances where industry participants have used regulation to impede new entrants. Existing permit holders are generally subject to the same conditions as new entrants, with the awarding of acreage made on a competitive bidding basis.

11. Are there any other regulatory barriers which create significant difficulties in accessing new gas reserves?

Governments impose regulatory conditions on the awarding of acreage, although the experience to date is that the conditions are designed to ensure successful bidders are capable of fulfilling their commitments to an agreed work program. This can cover both technical and financial competency.

In terms of financial competency, governments may seek to be assured that a titleholder is financially capable of remediating any possible damage that may be caused during petroleum operation activities.

Governments can impose regulatory barriers by placing conditions on permits in terms of consultation processes or expectations in relation to operational performance.

12. Are technical or financial requirements for entry of a new gas supplier changing? If so, describe these changes, identify key drivers and their effect.

APPEA is not aware of examples of this.

ACCESS TO PROCESSING FACILITIES

Questions on access to processing facilities

14. Do owners of processing facilities have an incentive to provide third party access to spare processing capacity? Explain why or why not.

Upstream processing facilities are designed for specific purposes, which may differ markedly from facility to facility, particularly with respect to the processing of liquids and the removal of contaminants. Considerable redundancy can be built into these facilities to provide for continuity of supply of gas while some processing units are shut-in for maintenance. APPEA notes this means that "spare capacity" as a concept is not directly translatable from pipeline transportation systems.

Commercial negotiation provides the least cost and most effective method for achieving third party access to upstream facilities and has led already to many access arrangements being successfully negotiated. For example, the Moomba Processing Plant owned by the South Australia Cooper Basin (SACB) joint venture, and operated by Santos Ltd, has for over a decade facilitated processing at Moomba, and export via Port Bonython, of non-SACB crude oil and natural gas liquids[10].

Competitive pressures and outcomes in the upstream industry over recent years has not revealed evidence of a failure of market forces to operate efficiently with respect to processing of third party gas streams. The upstream industry has a very clear preference for commercial negotiation to arrive at mutually agreed arrangements for such third party access.

In addition, as the Productivity Commission[11] noted on page 24 of its recent research report, *Examining the Barriers to More Efficient Gas Markets*

> *… denial of access to a gas processing facility is not necessarily evidence of the exercise of market power – there can be valid commercial reasons for the owners of gas processing facilities to deny third party access. There are coordination issues and costs from sharing a gas processing facility with other parties. These can include the need for plant modifications to ensure that the facility is compatible with the particular chemical composition of a third party's gas, and loss of flexibility in operations and investments.*
>
> *Beyond this, there are a number of other issues with the proposal. Part IIIA of the Competition and Consumer Act 2010 (Cwlth), which sets out the National Access Regime, contains a number of threshold requirements for its application. These include (among others): a requirement that the declared service is of national significance; a requirement that it is uneconomical to develop another facility; and an exemption for production processes. Regulating access to gas processing services could set a precedent that results in the expanded application of third party access regulation. In its 2013 review of the National Access Regime, the Commission was particularly concerned about proposals to increase the scope of the Regime, including broadening the types of infrastructure services that could be subject to third party access.*
>
> *There are also more general costs from this type of regulation, including:*
>
> - *reduced incentives for new investment by gas processing facility owners — third party access regulation can distort investment incentives if it asymmetrically expropriates above normal returns without compensating the owner for the downside risk*

[10] In addition, as Santos has indicated in its submission to the Issues Paper, the SACB has a substantial economic incentive to enable as much gas as possible, including third party gas, to be processed through Moomba, given it is a high fixed cost facility that has surplus processing capacity. Accordingly, the SACB aims to incentivise parties to use the Moomba facility for third party processing, thereby enabling non-SACB parties to deliver processed gas to market. Santos, as the Operator of the Moomba Processing Plant, has discussed access to gas processing at Moomba with a number of parties (with a view to access commencing as early as this calendar year).

[11] Available at www.pc.gov.au/research/completed/gas-markets.

- *reduced incentives for investment by third parties — third party access tends to lock in the infrastructure technology used by the incumbent regulatory error*
- *administrative and compliance costs.*

NEGOTIATION OF NEW GAS SUPPLY AGREEMENTS

Questions on negotiation of new gas supply agreements

18. Have industry participants encountered any difficulties in obtaining offers of gas supply, or been involved in any failed negotiations for supply of gas? If so, describe the negotiation, providing comments on what concerns arose about the process of negotiation and how this was different to previous negotiations.

19. Are there differences in the behaviour of gas suppliers in relation to negotiations for supply from, or to, different geographic regions? If so, provide details.

20. What are the key factors affecting the terms on which gas suppliers are willing to offer gas to users? Explain the effect of these factors on gas suppliers.

As an industry association, APPEA has not been a party to the negotiation of gas supply agreements.

However, APPEA notes the *Issues Paper* on page 12 reports:

> *A 2013 survey published by the Australian Industry Group found that nearly half of the 61 gas-using businesses surveyed in Eastern Australia were looking for new gas supply agreements. Of those, nearly 10 per cent reported that they could not get an offer at all, a third reported that they could not get a serious offer and a quarter reported that they could get an offer from only one gas supplier. Gas users have also raised concerns that gas suppliers are offering gas supply agreements which are for a shorter duration than requested by gas users or are not willing to supply gas at a price that meets the users' commercial needs.*
>
> *Some gas users have argued that these outcomes are indicative of gas suppliers in Eastern Australia having market power and exercising it to strategically withhold supply of gas to increase profits at the expense of domestic gas buyers.*

Such assertions should be rigorously tested by the ACCC. Assertions of this nature, not backed by evidence or objective analysis, have become an unfortunate feature of the discussion around domestic gas issues. The ACCC's focus on testing these assertions is welcome.

These claims, for example, do not appear to be supported by the amount of objective information on the range of gas supply agreements (GSAs) and other commercial transactions that have been entered into in Eastern Australia since December 2012 that is available.

Some (those that have been publicly announced) are highlighted in Box 1.

BOX 1. GAS SUPPLY AGREEMENTS (GSAs) AND OTHER COMMERCIAL ARRANGEMENTS ANNOUNCED IN EASTERN AUSTRALIA SINCE DECEMBER 2012[12]

1. Origin Energy Limited (Origin) on 20 December 2012 announced[13] the signing of a long-term gas sales agreement with the MMG Group (MMG). Under the terms of the agreement, Origin will supply MMG with a total volume of up to 22PJ of gas over a seven-year period, commencing in 2013.
2. Beach Energy Limited, through its wholly owned subsidiary Delhi Petroleum Pty Ltd, announced[14] on 10 April 2013 it had signed a gas sales agreement with Origin Energy Retail Limited for the sale of up to about 139PJ of sales gas for a term of eight years. Origin has an option to extend the term of the agreement by two years, which would result in the sale of up to approximately 173PJ of sales gas.
3. Lumo Energy on 14 May 2013 announced[15] an agreement with BHP Billiton Ltd and ExxonMobil Australia for the supply of 22PJ of gas over three years starting in 2015.
4. Strike Energy Limited on 16 July 2013 announced[16] it had entered into a binding term sheet with Orica Australia Pty Ltd, a subsidiary of Orica Limited, for the supply of up to 150PJ of gas over a 20-year period.
5. Origin on 19 September 2013 announced[17] it had signed a binding gas supply agreement with Esso Australia Resources Pty Ltd and BHP Billiton Petroleum (Bass Strait) Pty Ltd to purchase up to 432PJ of natural gas. Under the terms of the agreement, gas supply to Origin will start in 2014. Annual contract volumes will increase over a nine-year period.
6. ExxonMobil Australia on 11 November 2013 announced[18] that its subsidiary, Esso Australia Resources Pty Ltd, along with BHP Billiton Petroleum (Bass Strait) Pty Ltd, has executed a long-term agreement for the sale of gas to Orica Limited. The agreement will supply up to 42PJ of gas over a three-year period starting in 2017.
7. Origin on 28 November 2013 announced[19] the signing of a gas sales agreement with QGC Pty Limited (QGC). Under the terms of the agreement, Origin will supply QGC with up to a total of 30PJ of gas in calendar year 2014 and 2015.
8. Santos Ltd on 4 December 2013 announced[20] that it had recently signed five domestic gas contracts for a total of 30PJ of gas over generally five-year periods.

[12] More broadly, EnergyQuest recently noted *"… over 1.5 Tcf* [over 1,600PJ] *of east coast domestic gas has been contracted since the first LNG project was sanctioned in October 2010"*. See EnergyQuest (2015), *EnergyQuarterly May 2015*, p. 26 (www.energyquest.com.au/reports.php?id=1).
[13] See www.asx.com.au/asxpdf/20121220/pdf/42c25dkccc38by.pdf for further information.
[14] See www.beachenergy.com.au/IRM/Company/ShowPage.aspx/PDFs/2934-16785602/BeachsignsmajorgassalesagreementwithOriginEnergy and www.originenergy.com.au/about/investors-media/media-centre/agreement-to-purchase-gas-from-beach-energy-20130410.html for further information.
[15] See www.nzx.com/companies/IFT/announcements/236212 for further information.
[16] See www.strikeenergy.com.au/wp-content/uploads/2015/01/20130716_1-Strike-Orica-Joint-Statement.pdf and www.orica.com/News---Media/Orica-and-Strike-Energy-sign-binding-term-sheet for further information.
[17] See www.originenergy.com.au/about/investors-media/media-centre/origin-secures-432-pj-natural-gas-from-esso-bhpb-20130919.html and www.exxonmobil.com.au/Australia-English/PA/news_releases_20130919.aspx for further information.
[18] See www.exxonmobil.com.au/Australia-English/PA/news_releases_20131111.aspx and www.orica.com/News---Media/-BHP-Billiton for further information.
[19] See www.originenergy.com.au/about/investors-media/media-centre/gas-supply-agreement-with-qgc-20131128.html for further information.
[20] See www.santos.com/Archive/NewsDetail.aspx?p=121&id=1407 for further information.

9. Santos on 19 December 2013 announced[21] that the GLNG project participants have executed an agreement with Origin Energy for the purchase of 100PJ of gas for supply to the GLNG project. The gas will be supplied over a period of five years starting from January 2016. Under the terms of the agreement, Origin can supply additional volumes of up to 94PJ of gas during the same five-year period.
10. Incitec Pivot Limited on 19 December 2013 announced[22] the execution of a 23-month gas supply agreement for the Phosphate Hill manufacturing plant in north-west Queensland, effective from 1 February 2015.
11. Strike on 15 January 2014 announced[23] that the company has entered into a Gas Supply Option Agreement for 30PJ of gas with Orora Limited. Strike has granted an option to Orora for the supply of 30PJ of gas, to be delivered at 3PJ per annum, at a fixed price over a ten-year term from 2017, the expected commencement of production from the Project.
12. Strike on 27 February 2014 announced[24] that the company has entered into a Gas Supply Option Agreement for 12.5PJ of gas with Austral Bricks, a subsidiary of Brickworks Limited. Strike has granted an option to Austral Bricks for the supply of 12.5PJ of gas, to be delivered at 1.25PJ per annum, at a fixed price over a ten-year term from 2017, the expected commencement date of production from the Project.
13. Comet Ridge Ltd announced[25] on 19 March 2014, it had executed a revised agreement with Stanwell which replaces original Sale and Purchase Option Agreement signed in September 2011. The revised agreement provides for the transfer by Stanwell to Comet Ridge of its current 5% interest in the Mahalo Gas Project (MGP) and the relinquishment of its option to acquire up to a further 35% interest in the MGP in exchange for (at Stanwell's election exercisable at Final Investment Decision (FID) of the MGP) either Stanwell and Comet Ridge entering into a 20PJ to 40PJ gas supply agreement (GSA) over a 10-year period or Stanwell receiving a cash payment of $20 million (escalated at CPI).
14. Strike on 24 March 2014 announced[26] it had executed with Orica a full GSA which adds a further 100PJ to the 150PJ agreed in July 2013 for a total prospective gas supply of 250PJ over a 20-year period, with initial gas supply anticipated to commence in 2017.
15. WestSide Corporation Limited announced[27] on 27 March 2014 that the Meridian joint venture has signed a binding 20-year agreement to sell gas to the GLNG project. The agreement provides for future sales volumes up to 65TJ/d.

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[21] See www.santos.com/Archive/NewsDetail.aspx?p=121&id=1409 and www.originenergy.com.au/about/investors-media/media-centre/agreement-to-sell-gas-to-glngy-20131219.html for further information.
[22] See http://www.asx.com.au/asxpdf/20131219/pdf/42lqk4hrdnwqm9.pdf and phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9MjE1NjY3fENoaWxkSUQ9LTF8VHlwZT0z&t=1 for further information.
[23] See www.strikeenergy.com.au/wp-content/uploads/2015/01/20140623_Strike-Signs-Orora-Gas-Sales-Agreement.pdf and www.ororagroup.com/about_us/media_centre/news/Media-Release_Gas-Supply-Option-Agreement_150113.html for further information.
[24] See www.strikeenergy.com.au/wp-content/uploads/2015/01/20140227_Strike-Signs-New-Gas-Supply-Option-Agreement.pdf and www.brickworks.com.au/IRM/Company/ShowPage.aspx/PDFs/1399-10000000/STXStrikeSignsNewGasSupplyOptionAgreement for further information.
[25] See www.cometridge.com.au/PDF/ASX19Mar14_Comet%20Ridge%20buys%20back%20Mahalo%20Interests%20from%20Stanwell.pdf for further information.
[26] See www.strikeenergy.com.au/wp-content/uploads/2015/01/20140325_Orica-Gas-Sales-Agreement.pdf and www.orica.com/news---media/orica-signs-agreement-to-secure-an-additional-100-pj-of-prospective-gas-supply-from-strike-energy#.UzD-s7mKC70 for further information.
[27] See newwebchart.weblink.com.au/clients/pfl/article.asp?asx=WCL&view=2790171 for further information.

16. Strike on 23 June 2014 announced[28] that the company has entered into a GSA for 45PJ of gas with Orora. The GSA adds a further 15PJ of gas to the 30PJ agreed with Orora earlier this year in the Gas Supply Option Agreement (Option Agreement) announced by Strike on 15 January 2014 and supersedes and replaces that Option Agreement. The additional gas has been contracted on the same terms as the Option Agreement at a fixed rate of supply over a 10-year term from 2017.
17. Lakes Oil NL on 4 July 2014 announced[29] it had signed a letter of intent to supply gas (over a 10-year term) to Simplot Australia. The supply is subject to the execution of a formal supply agreement, final commercialisation of the Wombat field together with the lifting of the State's moratorium on drilling for gas onshore Victoria.
18. Armour Energy Ltd on 17 July 2014 advised[30] that it had entered a non-binding Memorandum of Understanding with MMG Century Pty Ltd to work together towards gas supply arrangements from Armour's exploration tenements in North West Queensland to MMG's Queensland operations. The study will evaluate gas supply volumes of up to 7-9PJ per annum plus an overlay for potential third party requirements.
19. Lakes Oil NL on 24 July 2014 announced[31] it had signed a letter of intent to supply gas (over a 10-year term) to Dow Chemical (Australia) Limited. The supply is subject to the execution of a formal supply agreement, final commercialisation of the Wombat field together with the lifting of the State's moratorium on drilling for gas onshore Victoria.
20. Central Petroleum Ltd on 11 November 2014 announced[32] it had entered into a non-binding heads of agreement (HOA) to supply up to 15PJ pa of gas from its conventional reservoirs in the Northern Territory to Incitec Pivot Limited. Central and IPL agreed a starting field price for gas which provides a commercial underpinning for the development of the natural gas project. The HOA contemplates Incitec Pivot providing assistance in sourcing capital for drilling and reserve certification. The agreement sets out the key milestones that will need to be met before a binding GSA is executed.
21. Santos and its joint venture partner Origin Energy on 13 November 2014 announced[33] the 5-year extension of ethane gas supply to Qenos. The extended sales contract will enable Qenos to maintain its operations at Botany Bay in Sydney.
22. Armour Energy Ltd on 26 November 2014 announced[34] it had entered a Memorandum of Understanding (MOU) with Aeon Metals Limited relating to gas supply from Armour's exploration tenements in North West Queensland to Aeon Metals' Walford Creek Project. The MOU relates to gas supply volumes of 1-2PJ a year.

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[28] See www.strikeenergy.com.au/wp-content/uploads/2015/01/20140623_Strike-Signs-Orora-Gas-Sales-Agreement.pdf for further information.
[29] See www.lakesoil.com.au/index.php/reports-and-announcements/item/lko-signs-loi-to-supply-gas-to-simplot?category_id=10 for further information.
[30] See armourenergy.com.au/assets/2014/1345009.pdf for further information.
[31] See www.lakesoil.com.au/index.php/reports-and-announcements/item/lko-signs-loi-to-supply-gas-to-dow-chemical?category_id=10 for further information.
[32] See www.centralpetroleum.com.au/IRM/Company/ShowPage.aspx/PDFs/1944-65967956/IncitecPivotandCentralPetroleumEnterFrameworkAgreement and
[33] See www.santos.com/Archive/NewsDetail.aspx?p=121&id=1472 and www.qenos.com.au/internet/home.nsf/0/9607BE621A02EB70CA257D8F003B1F66/$file/Qenos%20media%20release%20141113.pdf for further information.
[34] See armourenergy.com.au/assets/2014/1389426.pdf for further information.

23. AGL Energy Limited (AGL) on 9 April 2015 announced[35] that it had entered into a GSA with Esso Australia Resources Pty Ltd and BHP Billiton Petroleum (Bass Strait) Pty Ltd to purchase up to 198PJ of natural gas from Bass Strait over a 3-year period. The Esso Australia-BHP Billiton contract commences in January 2018 providing a continuation of gas supply from Bass Strait.
24. Real Energy announced[36] on 18 May 2015 that it had signed a non-binding Letter of Intent (LOI) with Incitec Pivot to progress negotiations with respect to finalising a GSA for the sale of gas from Real Energy's Cooper Basin gas project. The announcement pointed towards an indicative GSA of approximately 110PJ over a 10-year period.

The range of GSAs and other commercial arrangements (more of which are likely to be announced in coming months) suggest that there is enough information available to allow supply contracts to be concluded between willing buyers and sellers, that is, between gas producers and a range of commercial customers. It is also a more useful and objective information base for policy development and in considering the level of competition within the gas market than self-serving member surveys of the type reported on page 12 of the *Issues Paper*.

RISING DOMESTIC GAS PRICES

Questions on rising domestic gas prices

21. What are the key factors currently affecting the price of gas in Eastern Australia? Are current prices expected to be transitory or likely to be sustained? What information is most important to informing your view?

Gas prices are increasing for many reasons, most unrelated to the transition of the East Coast gas market to include exports. The factors have been canvassed in a range of recent reports, including most recently in the Energy White Paper.

Rather than repeat this analysis, APPEA would like to highlight a key factor that has received little attention – the role of rising industry costs.

To examine the key role rising costs have played in recent price movements, APPEA commissioned EnergyQuest to undertake an assessment of how much oil and gas exploration and development costs have increased in recent years and what have been the main drivers.

EnergyQuest's report, *Oil and Gas Industry Cost Trends*[37], finds:

- Petroleum industry costs have been increasing globally since 2000. Finding and development costs (F&DC) for new reserves increased six-fold between 2000 and 2013, from less than US$5/barrel of oil equivalent (boe) to over US$25/boe.
- According to IHS CERA, global upstream capital costs have more than doubled since 2000 and operating costs have nearly doubled.

[35] See www.agl.com.au/about-agl/media-centre/article-list/2015/april/agl-secures-gas-supply-until-2020-with-bass-strait-agreement and www.exxonmobil.com.au/Australia-English/PA/news_releases_20150409.aspx for further information.
[36] See www.asx.com.au/asxpdf/20150518/pdf/42ymkgbpyvdlq9.pdf for further information.
[37] A copy of the report is available at www.appea.com.au/wp-content/uploads/2014/11/APPEA-Cost-Report_Final.pdf.

  - The even greater increase in F&DC implies that reserve additions per dollar spent on development have also fallen.
- There have also been significant increases in Australia. In the three years to 2013 total Australian F&DC averaged $4.16/GJ, 2.7-times the average for the three years to 2007.
- The average cost of Australian and Papua New Guinea LNG projects (including both upstream costs and LNG plant development) increased by 33% between 2009 and 2013, reflecting both higher upstream and plant construction costs.
- Costs have increased substantially for development of offshore domestic gas projects. The increase reflects higher costs for drilling rigs, labour and materials, such as steel, and also lower field size and quality (requiring more treatment).
- F&DC in Queensland have increased from an average of $0.83/GJ in the three years to 2011 to $5.37/GJ in the three years to 2013, a 6.5-fold increase.
- Higher exploration costs are an important driver of higher F&DC. A decade ago the average exploration cost in the Cooper Basin was $2-3 million per well. It has since doubled, notwithstanding more efficient drilling practices. The average exploration cost in Queensland (both conventional and coal seam gas targets) has increased from less than $1 million per well in 2008 to almost $3 million in 2013. Offshore Western Australia there has been a steep increase in costs over the last decade from $10 million per well to $90 million (and in some cases to more than $130 million). This reflects higher rig rates and more challenging drilling.
- The best oil and gas fields are developed first and development then moves to higher cost fields if commercially viable.
- There have been significant increases in the cost of materials. The price of Hot Rolled Coil steel ex-Asia, used for tubulars and gas transmission pipelines, increased through the 2000s and peaked in 2011 at over $US700/tonne. Prices have since declined (in $US terms) to around $US500/tonne but they are still significantly higher than during the 2000s.
- High Australian labour costs are one of the drivers of higher costs. As will be considered further below, Incitec Pivot, for example, has said that it will cost around $1 billion to build its new ammonia plant in the US compared with $1.4 billion in Australia. Labour costs would be 35 per cent of the total project in the US compared with 60 per cent in Australia[38].
  - Higher costs reflect not only wages but also poor productivity.
- Tighter environmental regulation has increased costs and caused supply restrictions, meaning that potentially low-cost gas cannot be accessed.

Each of these factors mean, that while forecasting the exact timing of any moves to higher or lower prices is difficult, prices are unlikely to fall back to historical levels.

23. Is there an appropriate reference price for gas in Eastern Australia? Is one necessary? What are the pros and cons of different references prices?

A range of private sector suppliers are already developing and publishing price indexes for Eastern Australia. For example, Argus Media publishes a range of eastern Australian gas price indexes. Argus launched the first month-ahead index for the Wallumbilla natural gas market in September 2014. The month-ahead Wallumbilla price, known as the AWX index, is designed to offer a weekly

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[38] See www.adelaidenow.com.au/business/breaking-news/explosives-company-chooses-us-over-aust/story-fni6uk5p-1226914832618.

price reference for natural gas traded at Wallumbilla for delivery on a month-ahead basis[39]. Also a number of energy market analysts, for example, EnergyQuest in its *EnergyQuarterly*[40], already produce reports that aggregate existing publicly available information and anecdotal reports on gas prices.

In addition, the Australian Energy Market Commission (AEMC) is in its East Coast Wholesale Gas Market and Pipeline Frameworks Review is seeking to develop a survey-based gas price index. Given the package of "services" that are associated with different GSAs can vary significantly (a range of bespoke terms and conditions can be attached to any given contract), there is a limit to the usefulness that a single measure, such as a reference price, can provide. Nonetheless, the industry has supported additional information, including pricing information, being made available to the market. An appropriate reference price can form part of that additional information.

Further issues associated with information availability, including pricing information, are considered below.

NON-PRICE TERMS AND CONDITIONS

Questions on non-price terms and conditions

24. How do non-price terms and conditions offered by gas suppliers in new gas supply agreements differ to previous agreements? Provide examples with reference to recent gas supply negotiations, successful or unsuccessful. To what extent have any changes affected the business of gas buyers?

25. What are the factors driving any changes to the non-price terms and conditions that suppliers are offering to gas users? To what extent are any such changes necessary and desirable given the changes in the domestic gas industry? To what extent are any such changes being driven by transportation capacity constraints or uncertainty about available transport capacity?

26. In what way do non-price terms and conditions influence the negotiations for the price for gas or vice versa? Which non-price terms and conditions have the biggest effect on price negotiations?

27. Has there been a noticeable change to the extent to which gas suppliers require strict and full compliance with non-price terms and conditions of gas supply agreements? What do you consider has driven any change?

APPEA has not been a party to the negotiation of gas supply agreements, including those relating to any non-price terms and conditions.

[39] See www.argusmedia.com/About-Argus/Press-Releases/2014/Australia-Wallumbilla-Gas-Index for further information. A more general overview is also available in the Argus submission to the Australian Energy Market Commission East Coast Wholesale Gas Market and Pipeline Frameworks Review *Public Forum Paper* (www.aemc.gov.au/getattachment/d0b973c8-f175-464c-ae53-17420f6151d7/Argus-Media.aspx).
[40] See www.energyquest.com.au/reports.php?id=1 for more information.

28. *Are there non-price terms and conditions being included in new long-term gas supply agreements which may be warranted in the current market circumstances, but which could have an effect on supply of gas in Eastern Australia beyond those circumstances? If so, explain the likely effect.*

APPEA has not been a party to the negotiation of gas supply agreements, including those relating to any non-price terms and conditions. However, as highlighted in Box 1 above, any changes that may have occurred have not prevented a range of GSAs and other commercial transactions being entered into in Eastern Australia in recent years.

INFORMATION AVAILABILITY AND TRADING LIQUIDITY

Questions on information availability and trading liquidity

29. Is there adequate information publicly available about production capacity to supply LNG and domestic users? If not, what key sources of information are missing and what kind of issues does this create for market participants?

The range of GSAs and other commercial arrangements (more of which are likely to be announced in coming months) considered above suggest that there is enough information available to allow supply contracts to be concluded between willing buyers and sellers, that is, between gas producers and a range of commercial customers.

A number of steps have been taken by policy makers and market participants over the last ten years to increase the level of transparency in the East Coast gas market and enable more informed decisions to be made about the consumption, production and transportation of gas and longer-term investments. For example, in its Stage 1 Draft Report of the East Coast Wholesale Gas Market and Pipeline Frameworks Review, the AEMC set out the following, highlighting the increased level of transparency in the East Coast gas market, as follows.

BOX 2. CURRENT INFORMATION AVAILABLE IN THE EAST COAST GAS MARKET[41]

The resources that market participants can have recourse to when making consumption, production, transportation, risk management and investment decisions include:

- The National Gas Services Bulletin Board (BB), which is administered by AEMO and contains information on the standing capacity, short- and medium-term capacity outlook and utilisation of designated production facilities, storage facilities and transmission pipelines in Eastern Australia. It also contains a listing service for transmission capacity and gas.
- The Gas Statement of Opportunities (GSOO) and National Gas Forecasting Report (NGFR), which are prepared by AEMO on an annual basis and contain consumption forecasts, reserve estimates, production and transmission cost estimates, storage, processing and transmission information and a supply adequacy assessment.

[41] See www.aemc.gov.au/Markets-Reviews-Advice/East-Coast-Wholesale-Gas-Market-and-Pipeline-Frame/Stage-1-Draft-Report/AEMC-Documents/Stage-1-Draft-Report.aspx, page 146.

- AEMO's website, which contains pricing and other market based information from the Wallumbilla Supply Hub, the DWGM and STTM.
- The AER's publications, which include a Weekly Gas Market Report, which contains information on activity in the Wallumbilla Supply Hub, DWGM and STTM, production and pipeline flows and gas fired generation and regulatory decisions for pipelines that are subject to full regulation.
- State and Commonwealth government reports on gas resources and major projects (for example, the Australian Department of Industry and Science publishes *Resources and Energy Quarterly*, *Resources and Energy Statistics*, and *Australian Energy Projections*).
- Industry publications, such as EnergyQuest's *EnergyQuarterly*, which contains information on exploration, production, consumption, wholesale gas prices, the LNG projects, gas-fired generation, storage and transmission pipelines.
- Market participants' websites (for example, producers' and pipeline owners' websites and the capacity trading websites that have been set up by APA and Jemena).
- Annual reports and other periodic disclosures for ASX-listed entities (for example, disclosure of price-sensitive information and periodic disclosure of production, development and exploration activities for mining, oil and gas producing entities).
- Information that is discovered or revealed during bilateral contract negotiations.

It is important to note that most of information sources listed in Box 2 were not available ten years ago.

Both directly and through its membership of the (former) Gas Market Leader Group (GMLG), the industry-led body that drove the development of the BB, GSOO, NGFR and the STTMs, APPEA has been a long and active supporter of the development of arrangements to support the East Coast gas market. The industry has demonstrated its willingness to participate actively in gas market development processes in the past and expects this to continue into the future. These developments have arisen through both the evolution of the gas market, industry-led initiatives and government actions. The range and pace of these developments is, in many cases, not readily apparent to those that have not been directly involved in them and are often underappreciated by those not actively involved in the gas market development program on an ongoing basis.

Taken together, this means that a comprehensive, and growing, information resource, including information on production capacity, is already available to market participants.

It is also the case that the COAG Energy Council, through the Gas Market Development Plan[42], and the AEMC, through the East Coast Wholesale Gas Market and Pipeline Frameworks Review, are implementing or considering further steps to increase the level of information available to market participants, such as improved short-term and new medium-term capacity outlook information on the BB and redevelopment of the BB itself to improve the presentation of information, incremental improvements to the GSOO, particularly with respect to East Coast LNG developments. It will be important that developments in this area do not compromise any commercial-in-confidence dealings between market participants.

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[42] Available at scer.govspace.gov.au/workstreams/energy-market-reform/gas-market-development.

30. *What information do gas users need for the purpose of being able to confidently engage in gas supply negotiations? How would it be used?*

As an industry association, APPEA has not been a party to the negotiation of gas supply agreements. Also as noted above, a comprehensive, and growing, information resources, including information on production capacity, is already available to market participants.

31. *Does information asymmetry between gas suppliers and gas users have a significant effect on gas supply negotiations?*

As an industry association, APPEA has not been a party to the negotiation of gas supply agreements.

Naturally, there is information asymmetry between a buyer and a seller. Sellers have a better understanding of supply costs and alternative sales prospects. Buyers on the other hand have access to competing offers. In any negotiation both parties will negotiate on the basis of this information, and only proceed with a deal they consider competitive.

APPEA would again note that the range of GSAs and other commercial arrangements (more of which are likely to be announced in coming months) considered above suggest that there is enough information available to allow supply contracts to be concluded between willing buyers and sellers, that is, between gas producers and a range of commercial customers.

32. *Do facilitated trading markets currently provide a sufficient level of flexibility to market participants to manage risks and uncertainty in the changing market circumstances? To what extent are they likely to do so in the future?*

33. *To what extent are the pricing outcomes observed in facilitated trading markets likely to be relevant to the future negotiation of long term has supply contracts?*

34. *Is the further development of existing or additional facilitated trading markets likely to result in better outcomes for market participants? If so, how?*

35. *To what extent are international comparisons relevant to the supply of gas and associated services in Eastern Australia? Are there any lessons from reforms in the US, the EU or elsewhere that may be relevant for Australia? What reforms or measures adopted in the US or the EU are not likely to work in Eastern Australia, and why? Are there any intermediate trading models between the US/EU trading markets and bilateral contracting that could improve information flow and increase trading liquidity in Eastern Australia?*

The issues raised in Questions 32-35 are under consideration in the AEMC's East Coast Wholesale Gas Market and Pipeline Frameworks Review and so APPEA would refer you to our two submissions to the AEMC East Coast Wholesale Gas Market and Pipeline Frameworks Review[43].

JOINT MARKETING

Questions on joint marketing

38. Are gas trading markets in Eastern Australia sufficiently well developed to enable the separate marketing of gas by producers in joint ventures? If not, what would the preconditions be for removing joint marketing?

Determining whether joint or separate marketing provides a net public benefit will depend on the particular facts of each case. The ACCC actively and effectively uses its regulatory powers to investigate existing and proposed joint marketing arrangements in the natural gas and other industries.

APPEA is not aware of any evidence to suggest that these regulations are insufficient to provide appropriate oversight of the East Coast gas market, or that circumstances have changed sufficiently to reopen past investigations.

It should also be noted that applications that would allow for joint marketing are not unique to the gas industry. Indeed, they are available across the economy and are used in other industries. Joint marketing, for example, is used in the timber industry and in the airline industry[44].

39. What regulatory costs or savings arise from joint marketing of gas by producers? What are the costs and benefits that would flow from separate marketing of gas that is currently supplied under joint marketing arrangements? How significant would these be?

Joint marketing reduces the high costs and risks associated with production investments. This will further benefit all consumers by providing greater gas supply availability and lower gas prices. It can enable joint venturers to make development decisions and to then make further investments as fields mature and new facilities are required.

As the *Issues Paper* implies, there have been no applications for the joint marketing of gas on the East Coast in recent years and none are before the ACCC at present. APPEA also understands that existing arrangements have been reviewed and monitored by the ACCC.

[43] Available at www.aemc.gov.au/getattachment/8c5f529b-b6a9-4cad-948f-108b9d3abd05/APPEA-received-2-April-2015.aspx and www.aemc.gov.au/getattachment/e761e855-db42-438f-b4ab-d771c72e4ed1/Australian-Petroleum-Production-and-Exploration-As.aspx.

[44] See, for example *Softwood Tasmania Joint Venture* – Authorisations – A91120 – A91122 at registers.accc.gov.au/content/index.phtml/itemId/861977/fromItemId/401858, *Etihad Airways & Air Berlin* – Authorisations – A91307 & A91308 at registers.accc.gov.au/content/index.phtml/itemId/1049483/fromItemId/401858, *Qantas Airways Limited and American Airlines Group Inc.* – Revocation and Substitution – A91502 & A91503 at registers.accc.gov.au/content/index.phtml/itemId/1187050/fromItemId/278039 and *Qantas Airways Limited & Emirates* – Authorisations – A91332 & A91333 at registers.accc.gov.au/content/index.phtml/itemId/1078153/fromItemId/401858.

TERMS AND CONDITIONS FOR GAS TRANSPORTATION

Questions on terms and conditions for gas transportation

47. *Are there contractual terms and conditions in gas transportation contracts that are limiting competition in the supply of pipeline services (including secondary trading of capacity)? If so, explain what those terms are, the rationale for them and their effect on pipeline users.*

APPEA has not been a party to the negotiation of gas transportation contracts, including for the supply of pipeline services.

PIPELINE CAPACITY TRADING

Questions on pipeline capacity trading

48. *Are you aware of any instances where pipeline capacity was sought but not made available or alternatively not able to be procured in time? Provide details, including whether that capacity was sought from pipeline operators or shippers.*

APPEA has not been a party to the negotiation of gas transportation contracts, including for the supply of pipeline capacity.

49. *To what extent are the new capacity listing platforms offered by APA and Jemena, or the current rule change proposal to the AEMC to enhance capacity information, likely to assist in the development of efficient capacity trading? If so, how?*

50. *To what extent, or under what conditions, are the 'as available services' offered by pipeline operators a substitute for capacity trade entered into with a shipper? If not, provide reasons.*

51. *How effective is competition between shippers and pipeline owners for the provision of contracted but unutilised capacity? If it is not effective, what factors are impeding competition?*

Developing the market's ability to freely trade both gas and transportation capacity is an important step toward stimulating the flow of gas throughout the East Coast gas market. The resulting improvement in transparency and liquidity would help reduce any potential incentives for capacity hoarding and enable more efficient infrastructure utilisation.

Access to short-term transport capacity and competition between shippers and pipeline owners is restricted by limited transparency regarding the actual use of pipeline capacity. This lack of transparency regarding the availability of unused capacity in the pipeline system perpetuates the market's reliance on longer-termed agreements to manage supply risks. This has the effect of preventing efficient use of capacity and can inhibit the emergence and/or growth of short-term trading markets.

52. *Are the prices charged for capacity trades and 'as available services' what you would expect to observe in a workably competitive market?*

53. *How should available pipeline capacity be measured?*

54. *Are there any provisions in gas transportation agreements which limit or impede effective capacity trading? What are those provisions and how do they work to limit or impede capacity trading?*

One of the risks that can be minimised is ensuring adequate transportation capacity is available to be matched with commodity availability in the spot, short- and longer-term marketplaces. This would encourage the shorter-term trading of gas by reducing the risk of incurring imbalances and non-delivery penalties.

Such an initiative should aim to improve the efficiency of pipeline transportation services and provide greater transparency in relation to existing capacity trade, while ensuring existing property rights are preserved and that there are no adverse impacts on future pipeline investment.

It should also address the lack of a transparent market mechanism to allocate unused pipeline capacity, which would allow companies that own pipeline capacity to sell any available capacity in a traded market place.

Allowing gas to flow efficiently through the transportation system will improve the operation of the East Coast gas market. APPEA considers that efficient access to pipeline capacity is fundamental to market development and must be a key a feature of any reforms, including any proposed or recommended by the ACCC. Aligned with this, APPEA supports moves to improve transparency in pipeline markets that interface with the facilitated markets, so capacity can be traded more actively.

More specifically, to enable a material increase in use of 'as available' interruptible as well as secondary firm capacity trading activity the following issues need to be addressed:

- *Increasing transparency in the market is necessary to lay the foundation for all future reforms*: without addressing market transparency around capacity availability for the short-term, regardless of the current infrastructure investments, the markets ability to address shorter-term supply issues will be impeded.
    - To achieve the level of transparency necessary to open up the market further, the BB could be expanded to make capacity information and the capability for bidding on an electronic trading platform available in real time.
    - Having a transparent process that discloses operational capacity as well as unused firm capacity on a pipeline is a critical enabler to providing access to short-term transportation capacity for all market participants.
- *Standardisation of capacity trading products:* this could include an initial focus on the introduction of simple standardised products, such as release of firm capacity in the secondary market and 'as available' interruptible capacity made available by pipeline operators. These kinds of services would provide the most benefits with the least complexity.
    - One of the key issues addressed in the US was to ensure shippers that released firm capacity did not tie extraneous conditions to the release, such as requiring them to purchase gas from the pipeline companies in combination to the transportation capacity.
    - Detailed, standardised and non-discriminatory terms and conditions for becoming an established shipper and capacity trading need to be developed. These should be executed between the pipeline owner and potential replacement shippers prior to admission to the capacity trading market platform to enable maximum participation to short-term capacity bidding.
- *Improve accessibility to "as available" interruptible transportation capacity*:

- With improved information regarding operational pipeline capacity (including any anticipated outages/maintenance) and unused firm capacity, 'as available' interruptible capacity will flow, and the interest for such capacity should increase.
- An active market for 'as available' interruptible transportation would provide an incentive for shippers that hold firm unused capacity to offer such capacity in the secondary market.

CONCLUSIONS/NEXT STEPS

APPEA will continue to participate in the work of the Inquiry and looks forward to ongoing consultation with the ACCC as the Inquiry progresses. APPEA suggests the ACCC release a Draft of its Report later in 2015 and seek comments and undertake further consultation at that time.