



**RESPONSE TO THE JOINT WORKING GROUP
MMA STUDY ON NATURAL GAS SUPPLY**

Final Response

23 August 2007

EXECUTIVE SUMMARY

- The MMA report provides a detailed analysis of domestic gas supply issues and makes a timely contribution to current policy discussions.
- As recognised by the Joint Working Group, gas supply, energy sustainability and economic growth are issues of fundamental national importance.
- Access to competitive energy underpins Australia's industry base, including the manufacturing, processing and mining industries.
- Natural gas will play a significant role in transitioning Australia to a low carbon economy, while maintaining industry competitiveness.
- Any analysis of the appropriate policy responses to the current gas supply crisis must fully reflect these fundamental long term issues.
- The MMA report however appears to favour a narrower economic approach that focuses on maximising gas prices and producer returns.
- This appears to frame the report's overall approach, including its analysis of the nature current gas supply problem, what constitutes "normal" market conditions; and the appropriateness of policy responses.

Importance of domestic supply

- The MMA report does not fully evaluate the downstream benefits of gas and the potential costs of failure to secure competitive gas supply.
- An analysis prepared for the DomGas Alliance identified \$23 billion in development projects in WA currently seeking natural gas for expansion or new developments.
- These comprised eight iron ore and nine other developments including nickel, molybdenum, vanadium, gold and ammonia projects.
- Failure to secure competitive gas supply could see the deferral or loss of these projects.
- This will lead to the loss to the economy of:
 - over \$23 billion in construction capital investment
 - 15,800 potential construction jobs
 - 5,250 permanent operating jobs
 - \$9.2 billion in annual economic output

The need for a long term policy framework to ensure gas sustainability

- There is a need for an effective policy framework to ensure the availability and competitiveness of energy and gas in the long term.
- While the issue of reservations is a sensitive one, Alliance members are concerned that if producer and government targets of 50 - 60 million tonnes of LNG production per annum are achieved, the bulk of the gas which has been identified on the North West Shelf will be fully committed between 2015 and 2020.
- Failure to implement an energy sustainability framework will have serious impacts on economic growth, infrastructure investment and Australia's ability to meet the climate change challenge.

Gas reserves

- The MMA report concludes that available gas reserves are not of current concern and assumes that further discoveries will be made.
- The report also appears to consider that no government intervention would ever be justified to ensure long term energy security, provided there was sufficient time to consider imports and adjust to higher prices.
- The DomGas Alliance does not agree with these conclusions.
- Current estimates of reserves considerably overstate the availability of gas. The 120 Tcf of estimated reserves in WA represents only a 50% probability of recovery (P50).
- Only 17% of reserves relates to developed fields. The bulk of reserves are located deep offshore and have gas quality issues.
- There is no certainty that additional gas reserves will be discovered or that these will be economic to develop.

Size of domestic demand relative to potential gas developments

- The MMA report considers the scale of the domestic market to be relatively small compared to potential gas developments.
- The history of the North West Shelf project however confirms that domestic gas development is not dependent on LNG export development. It was the domestic market that underpinned the original project and subsequent exports.
- The current and potential size of the domestic market is substantial. It is estimated that WA will require almost 900 TJ/day of gas in the next 6 years to meet new and replacement demand.
- This is equivalent to the size of the existing domestic market for gas. It is also more than double the initial gas contract which underpinned the whole North West Shelf development.

Current market shortage and the market cycle

- The MMA report concludes that the current market instability is part of the “normal market cycle”.
- This is not supported by the evidence which instead points to a fundamental structural failure in the domestic gas supply market.
- The Synergies Economic Consulting report found compelling evidence of market failure, including: the extreme supply concentration with two operating entities holding close to 100% of all gas reserves in developed fields; the anti-competitive effect of the North West Shelf joint selling arrangements; and the lack of liquidity in the domestic gas supply market.

Comparisons of domestic and LNG prices

- The MMA report appears to consider LNG-netback prices as the appropriate long-term price for domestic gas and makes comparisons to current Japanese LNG prices.
- This analysis is flawed. The world market for natural gas is fragmented in different regional markets and prices vary significantly in different regions.
- Given the significant regionalisation of gas prices, LNG-netback prices do not constitute the appropriate price for domestic gas in Australia.

LNG exports and producer returns

- The DomGas Alliance does not agree with the MMA report’s assumption that LNG exports offer the highest returns for producers.
- There have been LNG sales to overseas markets at prices (even pre-netback) that are substantially below domestic gas prices.
- The fact that overseas customers can purchase Australian gas at prices substantially below that paid by local gas users underlines the impact of supply concentration and joint selling in the local market.

Dependence of domestic supply on spare capacity

- The MMA report correctly points out that whether gas is made available to the domestic market depends on whether producers have spare capacity.
- This confirms the DomGas Alliance’s view that there is no certainty that domestic gas will be made available from LNG export projects, even at LNG-netback prices.
- Gas users and infrastructure investors such as the Dampier bunbury Pipeline require long term confidence that gas will be available and competitive in the long term.

- If government and industry LNG targets of 50-60 million tonnes per year are achieved, this could see all Carnarvon Basin gas contracted out by 2015-2020.

Exploration and project development

- The DomGas Alliance supports the report's recommendations on:
 - increasing funding for pre-competitive geological data acquisition
 - providing infrastructure supporting exploration
 - taxation reform to assist small exploration companies
 - improving project approval processes and project facilitation
 - royalty reductions or holidays for onshore production; and
 - addressing cost escalation such as the skills shortage
- These policy options will deliver benefits in the long term by encouraging exploration and project development.

Retention leases

- The DomGas Alliance supports the MMA report's recommendations to reform the retention lease system by:
 - requesting re-evaluation of commerciality under the terms of lease
 - non-renewal of retention leases
 - considering a minor P(SL)A amendment to remove a loophole; and
 - considering replacing the lease renewal process with an auction to evaluate commerciality
- The Alliance strongly supports the report's recommendation that if a field held under a retention lease is capable of supplying the domestic market on a commercial basis, this should be the basis of assessment. The Alliance further recommends the legislation be amended to reflect this.
- In addition, the Alliance recommends the need for greater transparency to enable interested stakeholders to participate in the review process.

Joint selling

- The DomGas Alliance does not agree with the MMA report's conclusion that separate marketing is not supportable in the current market and would not in any event reduce concentration in domestic gas supply.
- The Synergies report confirmed that joint selling arrangements significantly reduce competition by reducing the number of sellers to the domestic market.
- The joint selling arrangements and extreme concentration in supply have in fact operated to prevent the market from evolving into a competitive market.

- While joint selling might have been justified 30 years ago when producers were dealing with a single domestic customer (SECWA), there is no justification now.
- Around 20-30 domestic customers currently contract directly with gas suppliers. It is difficult to see why global oil and gas companies like BP, Shell and Chevron need the protection of joint selling arrangements to negotiate with local gas users.

Gas quality specification

- DomGas Alliance members, particularly the Dampier Bunbury Pipeline, are working with producers and gas users to assess alternative solutions to gas quality issues.
- Given the goodwill of the parties involved, these issues are highly amenable to commercial resolution which could facilitate development of the Macedon field
- However, while Macedon production might contribute 100-150 TJ/d to the domestic market, this will only go some way to meeting the additional 893 TJ/d of gas that will be required in the next 6 years to meet new and replacement demand.

Third party participation in upstream gas supply

- The DomGas Alliance further recommends facilitating third party access to upstream infrastructure.
- Third party participation and multiple use facilities can facilitate new domestic gas developments by lowering investment risk/reward hurdles.
- Government can facilitate access by acting as a catalyst for discussions between relevant stakeholders, and by improving transparency and information disclosure in the retention lease system.

Supporting domestic gas exploration and development

- Given significant increases in the scale and cost of LNG developments, the domestic market cannot afford to rely only on export projects for domestic needs.
- The Alliance recommends targeted support to encourage domestic gas exploration and development.
- Measures could include targeted government exploration programs and data survey banks, aggressive marketing of new acreage releases, fee rebates and other forms of support.

Facilitating and expediting approvals

- The current approvals process and stringent demands placed on developments create significant barriers to entry for new players and serve to protect larger incumbent producers.
- While efforts have been made in this area, there are opportunities for further streamlining of State and Federal approvals processes for new projects.

Eliminating unnecessary government imposts

- The promotion of a competitive gas market requires the elimination of unnecessary costs throughout the gas supply chain.
- The Alliance encourages both State and Federal governments to examine the impact of all policies and regulations impacting on the gas supply chain, with a view to reducing unnecessary costs and inefficiencies.

BACKGROUND

The DomGas Alliance welcomes the opportunity to comment on the report to the Joint Working Group prepared by MMA on domestic gas supply. The report provides a detailed analysis of gas supply issues and makes a timely contribution to current policy discussions.

THE DOMGAS ALLIANCE

The DomGas Alliance was formed in 2006 in response to serious concerns about the continued availability and competitiveness of gas supply to the WA domestic market. The Alliance includes current and prospective gas users and gas infrastructure operators.

Members include: Alcoa of Australia, Alinta Limited, Synergy, Dampier Bunbury Pipeline, ERM Power/New Gen Power, Newmont Australia, Fortescue Metals Group and Moly Mines.

Alliance members represent the bulk of the State's domestic gas consumption and gas transmission capacity, including smaller industrial and household users of gas. They also represent a significant proportion of prospective demand for additional gas supplies.

The Alliance has been actively participating in the domestic gas debate. The Alliance notes the MMA report does not refer to the Alliance or the constructive views it has been putting forward in respect to alternative solutions. The views of APPEA, the body representing producers, are extensively quoted within the report.

GAS SUPPLY, ENERGY SECURITY AND ECONOMIC GROWTH

As recognised by the Joint Working Group, gas supply, energy sustainability and economic growth are issues of fundamental national importance.

Australia's long term economic prosperity depends on energy sustainability which is critical for continued investment, employment and living standards. Access to energy underpins Australia's manufacturing, processing and mining industries.

The Federal Government's 2004 White Paper on Energy affirmed the importance of energy sustainability. The paper recognised that competitively priced energy underpinned Australia's economic growth and much of Australia's industrial base. The White Paper also warned that energy security cannot be taken for granted and pointed to other countries where failure to secure energy has had profound economic and political consequences.¹

The importance of energy sustainability, particularly gas supply, will continue to grow in an increasingly energy- and carbon-constrained world. Natural gas produces only 30-50 per cent of the greenhouse emissions compared to coal. Given the Federal Government's announcement of the establishment of a national emissions trading scheme by 2012, natural gas will be critical for

¹ 'Securing Australia's Energy Future', Federal Government White Paper on Energy (2004), page 1 and 20.

Australian industries' ability to meet emission reduction targets, while maintaining international competitiveness and local employment.

The DomGas Alliance considers that developing responses to the current gas supply crisis cannot be approached in isolation from the long term challenge of energy sustainability, climate change policy and economic growth. In particular, there are a number of fundamental issues relevant to domestic gas supply:

- The importance of secure and competitive energy for sustaining Australia's economic growth, industrial base and employment.
- The economic impact of higher energy costs.
- The downstream benefits of maintaining and growing Australia's manufacturing, processing and mining industries.
- The importance of natural gas in a carbon-constrained world, such as with the introduction of an emissions trading system in Australia.
- The implications for Australia if available gas reserves are fully committed between 2015 and 2020 - which will be the outcome if LNG export targets of 50-60 Mtpa are reached.
- The long term security implications of Australia becoming dependent for its domestic needs on imports of gas from high sovereign risk areas such as the Middle East and Russia.

These are issues that need to be considered by policy makers from a long term national interest perspective. Any analysis of the need and appropriateness of specific policy responses to the current gas supply crisis must logically cascade from consideration of these issues.

The MMA report favours a narrower economic approach

The MMA report examines gas supply sustainability concerns and the need to balance export and domestic use. However, it appears to favour a narrower economic approach where the "economically optimum outcome" is one where gas prices and producer returns are maximised, and where production is maximised accordingly.

For example, the MMA report states:

"At present consumption levels Australia's proved reserves have a life substantially longer than the 40 years since the initial natural gas discoveries were made. This represents *sub-optimal exploitation of the resource, both from a national perspective and from the perspective of resource lease and licence holders.*"

"At present there seems little doubt that LNG exports offer the highest returns and are most attractive to gas producers for whom export is an option. It is recommended that an assessment of the alternatives be undertaken and if [gas market development] options *other than* LNG

exports are found to *offer greater economic returns*, means of aligning gas producers' interests with those of the national economy could be sought, to enable the market to deliver the *economically optimum outcome*.²

The report considers that countries which have established competitive domestic markets such as Canada have moved away from domestic allocation policies even though this has ultimately led to higher domestic prices and the need to import some gas requirements.³ The report does not evaluate the broader economic consequences of higher domestic prices, nor the national and economic security implications of a dependence on gas imports.

In assessing the issue of reserves sustainability, the report adopts a “traffic light” scheme. However the report considers that even condition “red” – where there are less than 15 years of reserves, prices are likely to rise, and consideration of imports is warranted – *does not* indicate market failure and the need for government intervention. Provided this “red” situation was arrived at progressively, with sufficient time for suppliers to consider imports and for users to adjust to higher prices, government intervention would not appear necessary.⁴

It would appear that on this approach, no government intervention would ever be justified to ensure long term energy security and economic growth. This narrower economic view appears to frame the overall approach of the MMA report, including its analysis of the nature of the current gas supply problem; what constitutes “normal” market conditions in the WA gas supply market; and the analysis of appropriate policy responses.

The DomGas Alliance considers this approach does not fully assess the importance of gas supply for Australia’s long term energy sustainability, likely climate change policy environment, and continued economic growth.

It also does not consider the implications for long-term investment in gas infrastructure of the current uncertainties regarding the availability and competitiveness of gas, particularly in Western Australia. The Alliance’s submission will address a number of key issues.

The importance of domestic gas supply

Access to competitively-priced energy (the Federal Government White Paper in fact refers to “low-cost” energy) has played a critical role underpinning sustained economic growth, high labour and general productivity, and prosperity in Australia, as well as much of Australia’s industrial base.

Natural gas is critical to the Australian economy as a source of primary energy (for example, supplying 51% of WA’s primary energy), and for electricity generation (for example, supplying 60% of WA’s electricity generation). Any change in the availability and price of gas will have a flow-on impact on household and business users of electricity.

² MMA Report, page xx, emphasis added.

³ MMA Report, page 116.

⁴ MMA Report, page 117.

The Synergies Economic Consulting report on WA gas supply and demand - which was commissioned by the Alliance and released in July 2007 - confirmed that given the structure of the WA economy, continued economic growth is critically dependent on access to energy, in particular natural gas.

The Synergies report also found that in a constrained economy such as the current situation where the economy is operating at close to capacity, the benefit from downstream investment will significantly exceed the benefit associated with the same level of investment in primary mineral production. This means that securing downstream industries through access to natural gas will exceed the economic benefits of LNG-exports only.⁵

In 2006, the value of production in the WA resources sector was \$48.4 billion, with LNG comprising \$4.5 billion or 9% of total value.⁶ In terms of employment, the oil and gas industry accounts for just over 5% of total employment in the WA resources sector. This compares to 27% for gold, 24% for iron ore, 15% for alumina and 12% for nickel.⁷

An analysis prepared for the DomGas Alliance identified \$25 billion in WA projects that are seeking natural gas for expansion or new developments, with demand totaling 518 TJ/day. These comprised eight iron ore developments and nine other developments including nickel, molybdenum, vanadium, gold and ammonia projects.

Failure to secure competitive gas supply could see the deferral or loss of these projects. This will lead to the loss of 17 major projects and:

- over \$23 billion in construction capital investment
- 15,800 potential construction jobs
- 5,250 permanent operating jobs
- \$9.2 billion in annual economic output

The above demonstrates the economic contribution of non-LNG industries to the State and national economy, and the downstream benefits of gas supply. These industries are heavily dependent on access to secure and competitive energy. Other downstream industries dependent on energy include chemicals, building products, ship-building and other manufacturing industries.

Any analysis should therefore evaluate the downstream benefits of gas and the potential economic costs of, for example, higher gas prices and LNG-netback pricing for downstream industries and the overall economy.

⁵ Synergies Economic Consulting Report, page 7.

⁶ Source: Chamber of Minerals and Energy WA

⁷ Source: Minerals Council of Australia

The importance of natural gas in meeting greenhouse reduction targets

The MMA report notes that at the same time that Australia is experiencing unprecedented growth in the LNG export market, Australian governments are moving to increase use of natural gas domestically as a cleaner energy source.⁸

The Prime Minister's Task Group on Emissions Trading recognised the strategic importance of natural gas in meeting greenhouse emission targets.

The Australian Petroleum Production and Exploration Association (APPEA) is also promoting natural gas as a low-emission energy source in the current greenhouse political debate. APPEA has set a target of 70% of total new generation capacity to be gas-fired by 2017.⁹

The availability of gas supply is of fundamental importance in a carbon-constrained world. In particular, there are significant implications for the long term competitiveness of Australian industry under a national or global emissions trading scheme where gas is not available, or only available at substantially higher prices.

The "economically optimal" outcome might therefore not be one which maximizes LNG exports and draws down gas reserves for LNG production in the shortest possible period. Such a result could mean higher compliance costs in the long term for Australian industry under an emissions trading scheme, and the loss of economic competitiveness, employment and investment. These issues are not considered in detail by the MMA report.

The DomGas Alliance believes that natural gas will play a significant role for at least the next 20-30 years in facilitating Australia's transition to a low carbon economy.

Natural gas is the only conventional energy source which can underpin this transition. Gas has a low greenhouse footprint, is practically available and requires only limited capital infrastructure to service the domestic market. Ensuring long term gas sustainability is therefore critical in managing Australia's transition to a carbon-constrained economy.

The shortage of gas has, however, already seen WA projects switching to coal. These include: the current WA 400MW electricity generation tender which is unlikely to include a gas option; the Gindalbie Karara iron ore project; and Newmont's Boddington gold project.

This domestic shift to coal is occurring at the same time that gas producers continue to expand exports of Australia's clean energy reserves.

⁸ MMA Report, page 1.

⁹ Source: APPEA

The need for a long term policy framework to ensure gas sustainability

Given the importance of natural gas, there is a need for an effective policy framework to ensure the availability and competitiveness of energy and gas in the long term.

While the issue of reservations is a sensitive one, Alliance members are concerned that if producer and government targets of 50 - 60 million tonnes of LNG production per annum are achieved, the bulk of the gas which has been identified on the North West Shelf will be fully committed between 2015 and 2020.

Failure to implement an energy sustainability framework will have serious impacts on economic growth, infrastructure investment and Australia's ability to meet the climate change challenge.

THE DOMESTIC GAS MARKET OUTLOOK

The MMA report confirms that WA is currently experiencing a serious shortage in gas supply. At a time when there is demand for new and replacement gas contracts, only one of the gas producers is currently in the market with most of the others having contracted all their developed reserves.¹⁰

The report notes that WA gas prices have more than doubled. The DomGas Alliance can confirm that prices have in fact almost tripled. Significantly, WA gas prices are at least double delivered prices in the Eastern States. The Alliance will address a number of conclusions in the MMA report.

Current reserves

The MMA report considers that total gas reserves are not a key factor in balancing exploitation of natural gas for export and domestic use at this time. Even if all potential export projects were to proceed immediately, reserve sufficiency may become a concern but they are unlikely to do so and by the time they do, further discoveries will have been made.¹¹

Western Australia currently has some 126,000 PJ (around 120 Tcf) of P50 reserves. This represents less than 2% of total world gas reserves.¹² Australia as a country only has around 2.4% of total world gas reserves.

The DomGas Alliance believes that rapid growth in international demand for gas, particularly with Australia being one of the few low sovereign risk suppliers, will place increasing pressure on Australia's long term gas reserves. The OECD estimates that global gas demand will increase at 2.4% per year for the next 5 years to 2010. Demand will increase to 113 Tcf per year by 2010.¹³

¹⁰ MMA Report, page vi.

¹¹ MMA Report, page 118.

¹² Synergies Report, page 9.

¹³ Synergies Report, page 41.

In Australia, LNG production grew by 11% and continuing growth of 7.5-9% a year is expected.¹⁴ The gas industry is aiming to increase LNG production to 50 million tonnes per year (2,770 PJ or 2.3 Tcf) by 2015. This represents a five-fold increase in less than a decade.

This will mean that all of the available gas reserves – at least in the Carnarvon Basin - will be fully committed between 2015-2020, leaving no gas to supply the growing domestic market.

Economics Consulting Services estimates that WA will require an additional 893 TJ/day of gas in the next 6 years to meet new and replacement demand. This is equivalent to the size of the existing domestic market for gas. It is also more than double the initial gas contract which underpinned the whole North West Shelf development.

Estimates of gas reserves may also considerably overstate the availability of gas. The 120 Tcf of estimated reserves in WA represents only a 50% probability of recovery (P50). The bulk of these reserves are currently located deep offshore and have gas quality issues. There is no certainty that it would be economic to develop gas from remote reserves for the domestic market. Significantly, of the 120 Tcf of reserves only 17% relates to developed fields.

Nor is there certainty that additional gas reserves will be discovered or that these reserves will be economic to develop. It cannot be assumed – as the MMA report appears to – that further discoveries will be made before the availability of reserves becomes of concern.

The focus of gas producers in exploiting the most economic fields for LNG also raises concerns for the long term availability and price of domestic gas. As producers develop in sequence reserves most profitable for LNG export, domestic gas will over time be sourced from increasingly expensive fields.

This will result in the situation where domestic users face progressively higher hurdles and escalating gas prices in the long term while overseas customers enjoy the benefit of our lower cost reserves.

The size of domestic demand relative to potential gas developments

The MMA report considers that the domestic market is of relatively small scale compared to most of the potential gas developments. The report accordingly concludes that market instability is part of a normal market cycle.¹⁵ The report also considers that large scale gas developments are conditional upon export sales whose timing is not linked to domestic needs.

This assessment is incorrect. First, the history of the North West Shelf project confirms that domestic gas development is not dependent on LNG export development. It was the domestic market – in the form of a take-or-pay contract - that underpinned the original North West Shelf project.

¹⁴ MMA Report, page 46.

¹⁵ MMA Report, page vi.

Without SECWA and Alcoa's initial commitment to purchase domestic gas, there would have been no North West Shelf development. The domestic market provided low-risk returns for over 20 years to producers, allowing producers to develop the gas industry and LNG sales.

Second, the MMA report notes that given LNG projects are experiencing significant cost overruns, new LNG plant commitments are proving difficult in the current environment.¹⁶ This underlines the importance of implementing domestic gas solutions which are not tied to LNG developments.

Third, the WA domestic market represents a significant market with demand currently being unsatisfied because of the current gas shortage.

An analysis by Economics Consulting Services estimates that WA will require almost 900 TJ/day of gas in the next 6 years to meet new and replacement demand. This is equivalent to the size of the existing domestic market for gas. It is also more than double the initial gas contract which underpinned the whole North West Shelf development.

Forecast gas demand includes gas to replace existing contract volumes; gas for expansion in electricity generation; and new projects that require gas for processing or electricity production. The total forecast estimate is 893 TJ/day made up of:

- Replacement gas: 245 TJ/day;
- Grid electricity generation: 120 TJ/day; and
- New mineral and petroleum processing projects: 528 TJ/day.

Replacement Gas – 245 TJ/day

A number of large gas purchase contracts expire in the next five years and will need to be renewed with producers. The largest volumes expire between 2010 and 2013.

Electricity Generation – 120 TJ/day

The main energy retail organization, Synergy, is currently seeking an additional 400 MW of electricity capacity and it appears highly likely that this can only be met by a new coal fired power station.

Anticipated capacity increases after that are expected from two new gas fired cogeneration plants associated with alumina production. Two units are coming on line in an open cycle configuration and are expected to convert to cogeneration with electricity available for sale in the south west of the State around 2009-2010. Two other cogeneration plants are under consideration but one company has moved to coal as the preferred energy source for electricity generation.

The total estimated demand for gas by the three cogeneration plants is 120 TJ/day.

¹⁶ MMA Report, page 45.

New Mineral and Petroleum Processing Projects – 518 TJ/day

Seventeen large projects have indicated that they are seeking natural gas for expansion or new developments totalling 518 TJ/day.

Ten iron ore projects were examined with three expected to turn to coal due to lack of a gas supply and seven hoping for gas availability.

Conclusion

The original WA domestic gas market underpinned the original North West Shelf development and made possible development of the LNG export industry.

The ECS analysis confirms the size of the current and future size of the domestic gas market. It appears, however, that this market is currently being ignored by the large gas producers which are focused on what they see as a window of opportunity in the LNG export market.

Government can play an important role in promoting the significant domestic gas opportunity to gas producers and to encourage smaller producers to enter the domestic gas supply market.

Current gas shortage and the normal market cycle

The MMA report concludes that the current market instability is part of the “normal market cycle”. The report considers that when a big development happens, there is a supply surplus and prices fall, and if the next big development is delayed there is a shortfall and prices rise.¹⁷

This conclusion is not supported by the evidence which instead points to a fundamental structural failure in the domestic gas supply market.

The Synergies report found compelling evidence of market failure. First, the gas supply market is highly concentrated with two operating entities holding close to 100 per cent of all gas reserves in developed fields. The challenges faced by new producers interested in entering the market is further exacerbated by the existing retention lease arrangements which serve to “lock-up” reserves from development.

Second, joint marketing arrangements for the North West Shelf joint venture significantly reduce competition by limiting the number of independent producers selling into the domestic market.

The Synergies report also found a lack of liquidity in the domestic gas supply market resulting from: transactions between buyers and sellers that are bespoke and long term; the absence of secondary markets, spot markets or market makers; and the joint selling arrangements leading to a lack of diversity of risk preferences across upstream suppliers.

¹⁷ MMA Report, page vi.

It should be emphasised that it is the existing regulatory framework that has operated to curtail development of a free and competitive and has instead contributed to the current market failure. This framework includes: the original 1977 joint-selling authorisation by the Trade Practices Commission; and the operation of the retention lease system that allows established producers to withhold reserves from development.

It would therefore be incorrect to characterise potential policy responses by government to the current gas crisis as intervention in the “free market”.

Comparisons of domestic and LNG prices

The MMA report considers historical WA gas prices as low (\$2.50-\$2.75/GJ) compared to LNG prices. The report makes a comparison to current Japanese LNG prices of \$8.30/GJ. The MMA report also appears to accept LNG-netback prices as the appropriate long term price for domestic gas.¹⁸

The DomGas Alliance believes this analysis flawed. First, as noted by UNCTAD, the world market for natural gas is fragmented in different regional markets and it is not possible to talk about a world price for natural gas.¹⁹ The Synergies report also warns that prices are likely to vary significantly in different countries or geographic regions. Interpretation of gas pricing can therefore be misleading as knowledge of the gas supply chain needs to be used when making comparisons.²⁰

Given the significant regionalisation of gas prices, LNG-netback prices cannot be said to constitute the appropriate price for domestic gas in Australia. The former reflect specific regional conditions, such as prevailing prices and resource endowments in Japan and China.

A comparison by the Energy Information Administration of the US Department of Energy also lists 2004 and 2005 gas prices in 31 countries. Japan is listed as having the third highest gas price, after only Barbados and Brazil, while China is not listed at all.²¹

Second, it is incorrect to compare spot prices with historical WA gas prices. The latter have been negotiated as part of long term supply contracts which provide commercial certainty to producers and reduce risk accordingly.

Third, historical WA gas prices have - until the last 12 months - been comparable with Eastern States prices. If the more than doubling in WA gas prices represents “normal” gas prices, this raises significant concerns for national gas prices in Australia.

Gas prices in the Eastern States can therefore be expected to double to align with WA domestic prices and LNG-netback prices. This has serious consequences for governments, businesses and households, particularly in Queensland, New South Wales and Victoria.

¹⁸ MMA Report, page 59.

¹⁹ Synergies Report, page 48.

²⁰ Synergies Report, page 48-49.

²¹ Synergies Report, page 49.

LNG exports and producer returns

The MMA report considers there seems little doubt that LNG exports offer the highest returns for producers for whom export is an option.²²

The DomGas Alliance understands the North West Shelf – China LNG contract provides for gas prices of around \$US 3 / GJ (fob), which equates to a LNG-netback price of around \$A 2.50 - \$3.00.

Recent LNG contracts to Japan provide for gas prices of around \$US 5 / GJ (cif), which equates to a LNG-netback price of around \$A 3.00 – 3.50.

By comparison, the recent Santos contract with Barrick Gold provides for an estimated price of \$A 7.50 / GJ. Estimated gas prices for other supply contracts to local users are around \$5.80 / GJ and \$4.70 / GJ.²³

A number of conclusions can be made. First, it cannot be assumed - as the MMA paper does - that LNG exports offer the highest returns or margins for producers. There have been LNG sales to overseas markets at prices (even pre-netback) that are substantially below domestic gas prices.

Second, the fact that overseas customers can purchase Australian gas at prices substantially below that being paid by Australian gas users underlines the profound economic impact of joint selling and supply concentration in the domestic market.

Overseas customers have access to a competitive international market and a diversity of sellers to source supply. Local users on the other hand face a market where there is a serious lack of competition. The North West Shelf joint selling arrangements significantly reduce competition by reducing the number of sellers to the domestic market.

This is further exacerbated by the extreme concentration in supply with two operating entities (North West Shelf and Apache) hold close to 100% of gas reserves in developed fields that currently service the WA market. Given that Apache-led joint ventures have limited undeveloped reserves, gas consumers are effectively forced to deal with a single seller with significant ability to influence prices or withhold supplies. In addition, local gas users have little choice as there are no reasonable fuel alternatives that could be accessed in a reasonable timeframe.

Dependence of domestic supply on spare capacity

The MMA report considers that producers have no reason not to sell domestic gas at LNG-netback prices in the longer term providing they have spare capacity. The report considers that the majority of projects are likely to have reserves to sell to the domestic market. Export prices are expected to provide a ceiling for domestic prices, which may be lower if there is sufficient supply.²⁴

²² MMA Report, page xx.

²³ MMA Report, page 19.

²⁴ MMA Report, page 60.

The DomGas Alliance considers the issue of availability of spare capacity as fundamental to the current crisis. There is no certainty that domestic gas will be made available from LNG export projects, even at LNG-netback prices. Supply will depend on producers having uncontracted production and reserves to supply the domestic market, as well as a willingness to do so.

Recent experience suggests domestic users will continue to experience supply shortages. Notwithstanding WA's strong economic growth, domestic supply increased by just 0.3% per annum over the past five years. At the same time, demand grew by around 6% per annum.²⁵ In 2006 alone, LNG production grew by 11% and continuing growth of 7.5-9% a year is expected.²⁶ The gas industry is aiming to increase LNG production to 50 million tonnes per year (2,770 PJ or 2.3 Tcf) by 2015.

In order to underpin new investment, gas users and infrastructure investors such as the Dampier Bunbury Pipeline require long term confidence that gas will be available and competitive in the long term. This is particularly true for investment in regulated infrastructure such as pipelines where regulators look at write-off periods of 60 years or more without regard to resource availability.

To the extent that government and industry targets of 50-60 mtpa of LNG are achieved, this could see all Carnarvon Basin gas contracted out by 2015 - 2020. There is therefore a need for policy responses to ensure secure and competitive long term gas supply to the domestic market.

DISCUSSION OF POLICY OPTIONS

The DomGas Alliance welcomes the MMA report's contribution in identifying and assessing possible policy options to respond to the current gas shortage.

The Alliance supports the report's recommendations on:

- Increasing funding for pre-competitive geological data acquisition
- Providing infrastructure supporting exploration
- Taxation reform to assist small exploration companies
- Improving project approval processes and project facilitation
- Royalty reductions or holidays for onshore production
- Addressing cost escalation such as the skills shortage

These policy options will deliver benefits in the long term by encouraging gas exploration and project development.

The DomGas Alliance will focus its detailed comments on four key issues: retention leases; joint selling; gas specification; and third party participation in upstream gas supply.

²⁵ Source: Chamber of Commerce and Industry WA, 'Meeting the Future Gas Needs of Western Australia', May 2007.

²⁶ MMA Report, page 46.

Retention leases

The MMA paper considers that retention leases could be used by producers to defer development. The paper also considers that under the current market circumstances, it would seem that conditions could not become more favourable for the development of domestic gas supplies. Any domestic gas that is not commercial at present is unlikely to be more commercial in 15 years time (page 62).

While retention leases can play a useful role in encouraging exploration, the DomGas Alliance believes that retention leases are currently being used by producers to withhold gas supplies from the domestic market. Under the legislation, a retention lease must be converted to a production licence when a reserve is commercial. It does not allow producers to park reserves or to develop in sequence reserves most profitable for LNG export.

There is a need for greater stringency in granting and renewing retention leases, particularly in applying the commerciality test. The Alliance supports the MMA report's recommendations to reform the retention lease system by:

- Requesting re-evaluation of commerciality under the terms of lease
- Non-renewal of retention leases
- Considering a minor P(SL)A amendment to remove a loophole
- Considering replacing the lease renewal process with an auction to evaluate commerciality

The Alliance strongly supports the report's recommendation that if a field held under retention lease is believed to be capable of supplying the domestic market on a commercial basis, then the Joint Authority administering the area should use this as the basis of assessment. The Alliance further recommends that the legislation be amended to reflect this.

There is also a need for greater transparency in the retention lease process to enable interested stakeholders to participate in the review process. There is currently no gazetting system which would make public the substance of a retention lease application. Nor is there a formal procedure for gas users or other gas producers to participate in a retention lease process.

The current arrangements therefore provide for an asymmetry of information that exclusively benefits existing gas producers. This needs to be addressed to encourage participation by new producers. The Synergies report recommends mandated disclosure of more detailed information relating to gas discoveries. This will help align commercial opportunities for project development with firms willing to undertake such development. Disclosure should not impact on the incentive to explore as it does not alter the property rights enjoyed by the exploration company.²⁷

The Alliance does not however support the proposal that if a retention lease is challenged, the successful challenger should be required to compensate the lessee for the value lost.

²⁷ Synergies Report, page 69.

It is the Alliance's view that ultimately, it is up to the lessee to make a commercial decision on whether to develop the field, sell it to another party to develop, relinquish the field, or continue to seek to maintain the lease on the understanding that it may be challenged / not renewed.

Joint selling

The MMA report considers that implementation of a Short Term Trading Market is the primary means of developing the domestic gas supply market to the stage where separate marketing is supported. The report therefore considers that separate marketing is not supportable in the current market. In reaching its conclusion, the report draws on the ACCC authorisation decision of 1998.²⁸

The report also considers that separate marketing would not reduce concentration in the WA domestic gas market, owing to the participation of a limited number of producers in domestic gas ventures. Exploration and discovery of additional reserves would be a more effective means of reducing concentration.²⁹

The current evidence does not support these conclusions. The joint selling arrangements significantly reduce competition by reducing the number of sellers to the domestic market. This arrangement forces WA gas users to negotiate with a single entity and means that users cannot negotiate with individual North West Shelf Joint Venture participants. The Trade Practices Act also prohibits domestic gas customers from buying gas jointly.

The Synergies report concludes the joint selling arrangements greatly reduce the number of independent producers selling gas into the domestic market.³⁰ Absent these arrangements, there would be seven independent producers potentially marketing gas for domestic use.

The impact of joint selling is further exacerbated by the extreme concentration in supply. Two operating entities (North West Shelf and Apache) hold close to 100% of gas reserves in developed fields that currently service the domestic market. Given that Apache-led joint ventures have limited undeveloped reserves, gas consumers are effectively forced to deal with a single seller with significant ability to influence prices or withhold supplies.

Increasing the number of potential suppliers to the domestic market will increase the diversity of supply offers available.³¹ This is because the risk preferences of the six members of the North West Shelf Joint Venture are likely to differ. The risk preference of the JV on the other hand represents an average of the individual members.

²⁸ MMA Report, page 67-68.

²⁹ MMA Report, page ix.

³⁰ Synergies Report, page 58.

³¹ Synergies Report, page 58.

The effect of this is that requests for domestic supply must satisfy a relatively narrow range of characteristics. These characteristics may also reflect the North West Shelf's experience with LNG contracts so that the only attractive domestic supply contract may be one for very large gas volumes delivered over long contract periods.

The DomGas Alliance also considers there is no justification for maintaining the joint selling arrangements – which are a historical anomaly. The arrangements date back to 1977 when the original North West Shelf Gas Joint Venture was authorised to sell jointly into the domestic market.

While joint selling might have been justified 30 years ago when producers were dealing with a single domestic customer (SECWA), there is no justification now for joint selling. There are currently around 20 – 30 domestic customers that contract directly with gas suppliers.

It is difficult to see why global oil and gas companies such as BP, Shell and Chevron need the protection of joint selling arrangements to supply to local gas users. Indeed, as the MMA report noted, separate marketing of domestic gas from the John Brookes field is taking place currently.

The MMA report also appears to draw heavily on a 1998 authorisation by the ACCC. The WA gas supply market has evolved considerably over the past 9 years with prices doubling in the last 12 months alone.

The test applied in the 1998 authorisation also appears narrowly based. Factors considered as supporting the viability of separate marketing included the entry of new competitive suppliers, the entry of brokers / aggregators, the creation of gas-related financial markets; and the development of significant short term and spot markets. In the view of the DomGas Alliance, the joint selling arrangements and the extreme concentration in supply have in fact operated to *prevent* the market from evolving and to curtail the entry of new competitive suppliers.

The Synergies report also notes that short term / spot markets, financial markets, the entry of brokers, etc, are all outcomes that can be expected to arise *when* a market is reasonably competitive. Seeking to put them in place will not create a competitive market when underlying structural characteristics (i.e. the existing joint selling arrangement and extreme concentration in supply) will not support it.³²

As such, the introduction of a short term trading market – as advocated by the MMA report – should evolve following removal of the joint selling arrangement and the move to a more competitive market. It should not be used as justification to maintain the existing anti-competitive joint selling arrangements.

Finally, it should be noted that in the 1998 authorisation, the North West Shelf Joint Venture justified retaining joint selling on the basis that it was necessary to underpin new investment, including a doubling in domestic gas processing capacity. The doubling of domestic gas processing capacity never happened.

³² Synergies Report, page 57-58.

Gas quality specification

The MMA report concludes that WA gas specifications are a barrier to entry of gas from certain fields. The report recommends that the WA Government consider the costs and benefits of revising WA gas standards to comply with the national standard, and that the Economic Regulation Authority and the Dampier Bunbury Pipeline should then consider broadening the DBNGP specification to match the national standard.³³

The Synergies report considered that gas quality can be addressed in two ways.³⁴ At the supply end, gas can be treated to ensure it meets the specification for the gas transmission system (prior to transmission). This has an associated cost. Alternatively, gas transmission systems can be built to cater for different gas quality. This too has an associated cost and in the case of regulated pipelines has an associated regulatory risk.

The Synergies report notes that resolution of these issues is primarily a commercial matter to be negotiated between producers, consumers and pipeline operators.

DomGas Alliance members, particularly the Dampier Bunbury Pipeline, are working with producers and gas users to assess alternative solutions to gas quality issues. Commercial resolution of these issues will improve access of gas, such as from the Macedon field, for domestic supply.

It should be noted however that while Macedon production might contribute 100-150 TJ/d to the domestic market, this still represents a substantial shortfall of in gas supply. The ECS report concluded that WA will require an additional 893 TJ/day of gas in the next 6 years to meet new and replacement demand.

Third party participation in upstream gas supply

An additional policy response is to facilitate third party access to upstream infrastructure.

The Synergies report found the costs of building pipeline and other gas processing infrastructure for delivering gas to the domestic market can be a significant impediment to developing new gas fields.³⁵

The report recommends improving access by gas users and infrastructure operators to upstream facilities. This may be through common user infrastructure or facilitating specialised infrastructure companies to take on ownership and operation of offshore gas gathering and processing facilities.

The DomGas Alliance believes third party participation and multiple use facilities can facilitate new domestic gas development by lowering the investment risk / reward hurdles.

³³ MMA Report, page ix.

³⁴ Synergies Report, page 71.

³⁵ Synergies Report, page 71.

Government can play a positive role in facilitating access such as by acting as a catalyst for discussions between relevant stakeholders, and in reviewing the retention lease system to increase transparency and information disclosure.

Supporting domestic gas exploration and development

Given significant increases in the scale and cost of LNG developments, the domestic market cannot afford to rely only on export projects for domestic gas needs. The Alliance recommends targeted support to encourage domestic gas exploration and development.

Measures could include targeted government exploration programs and data survey banks, aggressive marketing of new acreage releases, fee rebates and other forms of support.

Facilitating and expediting approvals

The current approvals process and stringent demands placed on developments create significant barriers to entry for new players and serve to protect larger incumbent producers.

While efforts have been made in this area, there are opportunities for further streamlining of State and Federal approvals processes for new projects.

Eliminating unnecessary government imposts

The promotion of a competitive gas market requires the elimination of unnecessary costs throughout the gas supply chain.

The Alliance encourages both State and Federal governments to examine the impact of all policies and regulations impacting on the gas supply chain, with a view to reducing unnecessary costs and inefficiencies.