

the **australian**
PIPELINE industry
association Ltd



Submission to the Standing Council on Energy and Resources

Consultation Regulation Impact Statement

Gas Transmission Pipeline Capacity Trading

15 July 2013

Contents

Introduction.....	2
1. Investment practice of the gas transmission industry.....	4
2. Size of transmission markets	6
3. Are opportunities to trade being fully utilised?	8
4. The definitions of ‘utilisation’ and ‘congestion’	11
5. Is ‘contractual congestion’ a material problem?	12
6. Is physical congestion a material problem?	13
7. Existing NGR provisions for information on and trading of capacity	15
8. The need and potential for market driven solutions.....	16
9. Assessment of options.....	17
Conclusion	21
Answers to RIS Questions	22



Introduction

The Australian Pipeline Industry Association (APIA) welcomes the opportunity to comment on the Standing Council on Energy and Resources (SCER) Officials Regulation Impact Statement on Gas Transmission Pipeline Capacity Trading (the RIS).

The RIS summarised many of the practices of the gas transmission industry and its commercial arrangements. APIA considers the RIS rightly places the burden of evidence for action on those that believe there are material gains to be delivered through facilitated pipeline capacity trading. However, there are some areas that APIA would like to clarify in our submission.

Key points in this submission APIA would like to highlight:

- It is not optimal to consider capacity trading in isolation. There are linkages between gas supply agreements and gas transportation agreements. To contemplate increased/facilitated/imposed flexibility in the capacity market in isolation from the wholesale market is curious.
- Unlike natural gas itself, pipeline capacity is not a commodity, it is a transportation service. Trading a service is not as straight forward as commodity trading. Platforms that allow parties to trade access to service should not be established independent of the parties providing the service.
- Standardised contractual terms and conditions reduce flexibility rather than facilitate it. This is particularly relevant when services rather than commodities are being traded.
- APIA supports market driven facilitated trading when and where it is appropriate. There are pipelines that are more obvious candidates than others and it is highly likely the most appropriate party to facilitate trading is the pipeline owner. A pipeline owner is able to account for any operational issues arising from increased trading, such as maintenance scheduling.
- When a pipeline's capacity is not being fully used, it is because gas is not required at that time in the market served by a pipeline. Improving access to this capacity, already readily accessible through a direct 'as available' arrangement with the pipeline, will not change this fact.
- The incentives for and willingness of pipelines to sell 'as available' capacity have been substantially underestimated in the RIS. 'As available' capacity service is a valuable avenue for some participants in the gas market and gas transmission companies have been active in

this space. To suggest that pipelines need to be forced to sell 'as available' capacity does not recognise the incentives for gas transmission companies to increase throughput (and therefore revenue) when possible..

In this submission APIA will raise matters it considers informative to the discussion prior to assessing each option and addressing the appropriate questions posed in the RIS.

1. Investment practice of the gas transmission industry

Australia has over 30,000 km of high pressure, steel gas transmission pipelines transporting over 1,515PJ of gas every year. It is estimated that the replacement cost of this critical infrastructure exceeds \$40 billion. Since 2000, over \$7 billion has been invested in new pipelines and expansions of existing pipelines. Notable investments include:

- the QSN Link, linking Queensland’s gas market, including coal seam gas reserves, to the major domestic markets of south east Australia;
- The Eastern Gas Pipeline, providing a second source of gas supply to NSW;
- The SEA Gas Pipeline, providing a second source of gas supply to SA;
- The near doubling of capacity of Australia’s longest pipeline, the Dampier to Bunbury Natural Gas Pipeline; and
- the Bonaparte Gas Pipeline, providing new supply security to Darwin from the Bonaparte Gulf.

These investments have substantially increased competition and/or gas supply to most of Australia’s demand centres.

The pipelines listed above are those that can be considered ‘traditional’ transmission pipelines – in that the commercial decision to invest in these pipelines was made on the basis that the capacity would be sold to third parties. The pipelines currently under construction in Queensland are not ‘traditional’ transmission pipelines, the commercial decision to invest in these pipelines was made on the basis they would be used to facilitate LNG export with little, if any, revenue derived from capacity sales to third parties.

Investment Decisions

Gas transmission pipeline infrastructure provides the means to connect gas supply with the gas market, safely, efficiently and reliably. New pipelines and expansions of existing pipelines are built to meet shipper demand. Shipper demand for new pipelines or expansions usually arises from a new investment at the end of the proposed pipeline, for example a new gas powered generator, a large industrial customer, or a new mining venture.

The terms of the pipeline investment, in particular the cost and length of the transmission contract, typically reflect the shipper’s underlying gas supply arrangements. In the case of both gas supply and gas transmission contracts, the shippers will usually seek long term arrangements as it needs certainty of access to market for the new facility. Short term gas supply or capacity arrangements are unlikely to support investments in significant plant, nor investment in transmission capacity. Therefore, longer term contracting for new pipelines and expansions is in the interests of both the shipper and the transmission company, to ensure access to market and returns on investment.

The pipeline company will approach its existing customers and potential customers to determine interest in capacity in the new project. Pipeline companies have great incentive to locate as many interested parties as possible; maximising the size of the investment creates benefit for everyone. Pipeline investments benefit from economies of scale, so the larger a pipeline project can be, the greater the capacity available for sale by the pipeline and the lower the unit cost of that capacity will be for its customers. Locating as many customers as possible is a genuine win-win situation for gas

markets. Any suggestion that some form of mandated 'open season' declaration on new projects will lead to better investment outcomes than existing market practice is misguided.

Once a pipeline company has secured enough long term commitments for a project, the final investment decision is made and the project is built.

Once a pipeline is built, it can be readily expanded to meet unforeseen future demand growth if potential customers are willing to pay for the expansion. Pipeline owners in Australia have a track record of meeting demand for new capacity in time and within budget.

As Professor Garnaut noted in his 2008 Final Report of the Garnaut Climate Change Review:

*'This is an example of a network infrastructure market working efficiently without government Intervention.'*¹

Reasons for current investment practice

In APIA's view, there are three primary reasons pipeline investments are conducted the way they are.

Efficient use of capital

By building pipelines to meet current gas demand expectations, pipeline companies are efficiently using capital, which can help to keep transportation tariffs down. If a pipeline was built and not expected to be fully used for 10 years, some of the capital spent on the project has effectively been 'buried in the ground' for a decade instead of being put to good use somewhere else.

Financing requirements and costs

Pipelines are owned and operated by specialist pipeline companies that tend to work under long-term arrangements with customers with predictable revenue. These long-term arrangements are necessary to reduce the risk of pipeline investment, pipelines are built with initial design lives of 40-50 years and there must be confidence that demand for a pipeline's services will be sufficiently long to support the pipeline. As a result, pipelines are often able to reduce the risk of investment sufficiently that they are able to attract capital on better terms (lower interest rates) than other investment options with higher risk profiles. The success of the sector in reducing the risk of investment can be observed in the low rate of return set by economic regulators for covered pipelines.

These lower costs of capital result in lower transportation costs for all gas users. In turn, financiers expect that pipeline investments are underpinned by long-term contracts. It is apparent that the only revenue of interest to a financier is that derived from the sale of firm capacity under long-term contracts. The potential for a pipeline to generate revenue from other means is not a consideration when financing an investment. Nevertheless, the value of a pipeline company is enhanced by trading 'as available capacity'.

¹ P453 Garnaut Climate Change Review Final Report

Regulatory Risk

When a pipeline's capacity is fully contracted it lowers exposure to regulatory risk particularly where companies have successfully negotiated outcomes for pipeline services. Under the National Gas Law, pipelines are exposed to the prospect of economic regulation ('coverage') whereby a regulator will approve tariffs for the pipeline.

There is a real risk that regulators will set the regulated tariff on spare capacity lower than the tariff paid by foundation customers. It is common for foundation contracts to include 'most favoured nation' type provisions, ensuring foundation customers are not worse off than customers who subsequently contract on the pipeline. This is appropriate as it is the foundation contracts that enable a pipeline or expansion to occur.

If a pipeline is fully contracted, the regulated tariff becomes less relevant, as there is no spare capacity to which it can apply.

2. Size of transmission markets

Relative to international markets that are considered more liquid and deep, the Australian gas market is small. Total demand is 1500PJ. East coast demand is 640PJ. The number of participants is low. The number of unique registered participants in each STTM is just over 10.

There are several key factors that shape Australia's gas markets:

- Remoteness of gas supply basins. The majority of Australia's main gas-producing basins are remote from population centres. They typically serve one or two demand centres through a very long and narrow diameter (by international comparisons) single pipeline to each centre.
- Concentration of population. The majority of Australia's population lives in coastal capital cities separated by long distances. This concentrates energy demand in regions around these cities. The distance of capital cities from the locations of gas supply means no single pipeline serves more than one major demand centre. (Nevertheless, it should be noted that the eastern centres are connected. The Adelaide, Sydney and the Victorian markets are serviced by more than one pipeline and Brisbane has access to gas from other centres through the linkage of the transmission pipeline system.)
- A relatively low gas demand, by international comparisons. Australia has a small population, a small manufacturing sector, an electricity sector primarily fuelled by coal, and a temperate climate. These factors contribute to a relatively low gas demand, meaning most demand centres can be easily served by a single larger pipeline or two smaller pipelines, noting that a large pipeline by Australian standards is half the diameter of a typical large pipeline in the US or Europe.

To further clarify the size of Australia's gas market, it is useful to compare Australia's gas markets to those in the United States of America. Australia and the US have a similar geography and both have substantial reserves of natural gas. The US is home to the most sophisticated gas market in the world, the Henry Hub. The Henry Hub, located in Louisiana, is the deepest and most liquid gas market in the world, one of the few true 'spot' markets for gas and often referenced by Australian policy makers as the model gas market Australia should aim toward. Whilst this seems a reasonable

goal, the factors listed above and the facts provided below suggest it may be inappropriate to compare Australian gas markets with others.

Comparison of gas market characteristics: Australia, USA and Louisiana

	Australia	USA (lower 48)	Louisiana
Area (sq km)	7,692,024	8,080,464	134,642
Population	23,022,387	306,675,006	4,533,372
Gas consumption (PJ)	1,515	27,450	1,576
Gas export (PJ)	1,086	1,782	6183 (to other US states)
Major pipelines	12	210	30
Pipeline length (km)	28,500	488,000	78,500
Storage facilities	2	400	21

Source³

Louisiana is roughly half the size of Victoria, has a local gas demand exceeding Australia’s, ‘exports’ around 6 times as much gas as Australia freely by pipeline rather than LNG; and has a pipeline network almost 3 times as long as Australia’s. On its 30 major pipelines there are 75 regulated gas transportation entities⁴. It is a deep and liquid market. There are 9 major interstate pipelines that pass through Henry Hub in Louisiana. Only 4 of Australia’s transmission pipelines transport gas interstate – and they all go to different States. Of course, they provide competition, as mentioned above, but not in the same way a deep and liquid market such as that in the US does. Comparison of the two markets is fanciful to say the least.

Interventionist facilitated trading, such as that considered in Option 4 in the RIS, is simply unwarranted in such a small market.

³ Australian gas statistics are from *Energy in Australia 2013* and APIA’s pipeline data, US and Louisiana gas statistics are sourced from the US Energy Information Administration. Population statistics : Australian Bureau of Statistics and US Census Bureau (2010 Census). Area statistics: United Nations Statistics Divisions and US Census Bureau (2000 Census)

⁴ Louisiana Department of Natural Resources

3. Are opportunities to trade being fully utilised?

APIA has the following comments on the section in the RIS on pages 17 and 18 titled 'Are opportunities to trade being fully utilised?'

The section states:

'While virtually all pipeliners are likely to hold non-firm, or 'as available', interruptible gas transportation capacity, it is understood that, at present, pipeliners are generally more interested in negotiating longer-term transportation contracts for significant volumes rather than short-term contracts or deals for smaller or ad-hoc volumes. This is because standalone short-term and/or small-quantity transactions represent low-value propositions for pipeliners and they may be more interested in pursuing other activities aimed at maximising revenue. There may also be significant transaction costs, for example it is understood that negotiations for 'as available' capacity can take between 2-4 weeks (or longer) to finalise.'

This statement contains several misconceptions. The reality is a pipeline is financed, built and expanded on the basis of long-term arrangements. The business case for investment is made on the basis of long-term arrangements. APIA wishes to emphasise that the recontracting of capacity once foundation contracts expire can be of varying lengths and usually mirror the upstream gas supply arrangements for the shipper. In the current environment where shippers are having difficulty securing long-term gas supply arrangements, transportation contracts have also been shorter.

It is the experience of pipeliners that small quantity transactions are typically difficult to execute due to a lack of interest from the market. Small quantities of capacity can be available on the completion of a new pipeline or expansion of a pipeline due to an inability to completely match shippers' requirements and infrastructure capacity.

By way of example, compressor units are not custom built, they are purchased 'off the shelf' and have fixed sizes. Whilst able to closely match compressor requirements with committed capacity, there is typically a small amount of spare capacity remaining. In one recent example, the Roma to Brisbane Pipeline, a covered pipeline typically presented as physically congested (including in the RIS), had available firm capacity of 4TJ/day for 3 years following the completion of an expansion project. Information about this was available to the market – to sellers and buyers – but had not been taken up until recently.

It is incorrect to imply that pipeliners are not interested in contracting or small quantities of MDQ. The quantities that pipeliners contract with shippers are driven by the size of the customer loads. It is likely that from an end users perspective there will be a quantity of MDQ at which it is more efficient for an end user to purchase delivered gas from a retailer rather than contracting for transport and upstream gas supply and potentially distribution services. At what level it is more efficient to contract for delivered gas rather than unbundled supply arrangements will depend on transaction costs and the cost of administering contracts over their life.

'As available' capacity provides additional revenue and, importantly, helps promote opportunities for new customers that cannot secure trades with existing firm shippers. 'As available' arrangements are flexible by nature, representing an option for a shipper.

APIA is aware that some market participants have the view that ‘as available’ capacity should be made available more cheaply or at the marginal cost of capacity. The pricing of ‘as available’ capacity is a complex commercial decision. It should be noted that in circumstances where ‘as available’ capacity is priced more highly than firm capacity it provides an increased incentive for holders of firm capacity to trade their capacity to third parties as there is a potential to not only avoid costs of unutilised firm capacity but to profit from its transfer.

Further, a commercial negotiation of 2-4 weeks is a rapid one. Consider the timeframes of one of the most routine commercial contractual arrangements, a house sale. Despite the widespread use of standardised contracts, a large subset of the legal profession specialising in conveyance law and a general familiarity of typical arrangements by most participants, the negotiation and execution of a house sale typically exceeds 60 days. The standard timeframe following the exchange of standard contracts is 30 days.

A decision to participate in gas markets is not taken lightly or entered into rapidly. Any entity sufficiently sophisticated to manage its own gas supply and capacity arrangements should be well aware that a 2-4 week timeframe to negotiate a specifically tailored capacity contract is an excellent outcome. This is substantially shorter than the timeframes required to finalise gas supply contracts.

The section also states:

‘However, it is understood that generally, apart from large users of firm pipeline services, it is difficult for small users to negotiate ‘as available’ services with pipeliners.’

To the contrary, APIA members report that potential customers do approach the traditional pipeline companies to negotiate a stand-alone ‘as available’ service and all pipeline companies have ‘as-available’ services ready to sell. Some smaller customers have made the commitment to participate and ‘as-available’ contracts are a small feature in the East Australian Gas Market. These arrangements, however, are a small feature in Australian gas markets and the overwhelming demand from shippers, including small shippers, is for firm capacity services.

The experience of APIA’s membership is that each customer has specific needs and so a standard generic product is rarely required.

The section notes that outside of peak days, it is likely that large shippers are not fully using their contracted capacity. As discussed below, a primary purpose of firm capacity is to ensure access to gas in peak periods. It does not seem logical to conclude that this contracted capacity is unavailable outside of peak days, both pipelines and holders of firm capacity (shippers) have incentives to ensure the spare capacity is used by a third party.

The section concludes with:

‘The availability of this class of firm transmission capacity will be dependent on whether or not existing shippers offer it up to the market. Ultimately, shippers with unused firm capacity will weigh up the costs and benefits of trading their unused capacities. It is noted that there may be limited incentives to offer up this capacity, particularly in the absence of an undemanding capacity transaction mechanism.’

APIA considers that gas transmission companies are highly incentivised to offer up any spare capacity at every opportunity.

There is also trade in delivered gas occurring, including that being facilitated by the STTMs. It may be that the trade of delivered gas is filling much of the perceived need for capacity trading.

4. The definitions of 'utilisation' and 'congestion'

The RIS uses the terms 'underutilised' and 'unused' interchangeably when referring to pipeline capacity.

Many forms of transportation infrastructure, such as roads, electricity networks, water pipelines or gas pipelines, are built to meet a peak transportation demand. Peak transportation demand is driven by differing factors for each infrastructure type. Urban roads are built to facilitate morning rush, or 'peak', hour. Electricity networks are built to ensure that the load spike during early evening on the hottest days of the year, when the majority of the population returns home and turns on energy intense air conditioners, can be managed. Gas transmission pipelines are built to meet the peak requirements of their customer base. Transmission pipelines supplying large urban market are likely to experience peaks during the coldest winter days and during heat waves when delivering gas to peaking power stations.

To state that any occasion that infrastructure is not being fully used it is underutilised is incorrect. From a pipeline investor's perspective, **underutilisation occurs when a pipeline is meeting peak demand and it has uncontracted capacity**. This is an important concept, the risks taken and commercial decisions made by pipeline investors cannot be dismissed. Pipeline owners have an economic incentive to sell any underutilised capacity.

On page 15 the RIS sets out the concept of congestion on a pipeline and suggests a pipeline can be any one of: physically congested; 'contractually congested' or uncongested. These definitions refer only to the level of usage of a pipeline (deemed 'utilisation' in the RIS) and its level of contracting.

In the case of gas transmission pipelines, and indeed all transport infrastructure, **the concepts of utilisation, efficient use and congestion cannot be linked solely to the usage of the infrastructure assets, they must also be linked to the market and the demand an asset serves**.

The first question that must be posed in determining if a pipeline is congested is:

Is a pipeline meeting peak demand?

This is a question of actual existing demand and whether or not the gas users served by a pipeline are being supplied with sufficient gas during peak times. The qualification of 'peak demand' is important – this is the level of use pipelines are built to meet. By the very nature of pipeline infrastructure, at all non-peak times there will be unused pipeline capacity.

If a pipeline is serving a market sufficiently, such that all existing gas users that require gas have access to it during peak times, it is not congested.

If a pipeline is not serving a market sufficiently, such that existing gas users are prevented from conducting activity due to an inability to access gas, then there is an issue.

APIA considers that:

- If existing demand is not being met during peak times and the pipeline has spare capacity at peak times then the **pipeline may be 'contractually congested'** (the case may also be that insufficient gas is entering the pipeline); and

- If existing demand is not being met during peak times and the pipeline has no spare capacity at peak times then the pipeline is **physically congested**.

If congestion is a material problem in either of these circumstances, in the context of this RIS the question that follows is:

Can capacity trading have an impact on this problem?

These questions are best considered separately for contractual and physical congestion.

5. Is ‘contractual congestion’ a material problem?

To assess whether ‘contractual congestion’ is a material problem it is necessary to consider the circumstances under which it may actually occur.

Given that it is standard transmission industry practice to construct new pipeline capacity to meet contractible demand, it is normal that a newly constructed pipeline or expansion is fully contracted and used at full or near full capacity in peak times.

If the peak demand of a pipeline does not meet the level of firm capacity that is contracted, it must mean that:

- the anticipated demand has failed to materialise; and/or
- the customer overestimated the duration of their gas requirements.

In either circumstance, the ‘contractual congestion’ has actually arisen out of a lack of gas demand, not an inability or unwillingness of the transmission market to facilitate it. There is not gas demand that is being unmet.

If contractual congestion occurs from lack of demand, there is contracted capacity that is not being used and could be made available to other potential users. It is important to note that these new users would represent new gas demand. It is also important to note that the holders of the unused capacity (the shippers) should have a commercial incentive to trade; they are paying for a transmission service they are not using.

As noted above, the Australian gas transmission market is not large. Most gas users are sufficiently large and sophisticated to negotiate directly with gas producers for gas supply. Such a user seeking firm capacity on a gas transmission pipeline would:

- be sufficiently knowledgeable to be aware of other major gas users in the market;
- be able to assess the potential for trading; and
- have sufficient initiative to approach possible trading partners and make enquiries.

These factors, combined with the commercial incentive of the capacity holder (the shipper) to trade it, should be sufficient to ensure parties genuinely interested in accessing firm capacity on pipelines that are ‘contractually congested’ are able to do so. Indeed, APIA’s members are aware of bare transfers between existing shippers and third parties and existing shippers carrying gas for third parties through sub-haulage agreements, as allowed for in existing contracts.

There seems to be a view that the costs associated with executing such a transaction are too high and that facilitated trading could lower these. The difference between ‘necessary costs of doing business’ and ‘unduly high transaction costs’ must be considered. The gas market in any demand centre is not large, there are a small number of large participants and at most there are two transmission pipelines. As stated above, any party sophisticated enough to manage its own gas supply arrangements should be able to adequately initiate and execute the necessary transaction in such a market.

There appear to be claims that some market participants that desire firm capacity suggest that they cannot identify appropriate counterparties. This is likely due to the absence of any such counterparties. APIA is not aware of any market participants that have a desire to trade held firm capacity raising any issues with their ability to do so.

As such, APIA does not consider ‘contractual congestion’ to be a material problem.

What impact could facilitated capacity trading have on ‘contractual congestion’?

Improved information, such as the ability to signal the desire to discuss a trade, or a facilitated trading platform could, theoretically, lower the transaction costs of executing a transaction on a contractually congested pipeline in that it would be easier to identify a counterparty. However, the cost of approaching potential counterparties is minimal, a small amount of research and a number of phone calls should be sufficient. Regardless of how a counterparty is identified, a negotiation would still have to take place.

The idea that standardised contracts could be developed to assist any trades is misplaced. This will be addressed in APIA’s assessment of option 2.

6. Is physical congestion a material problem?

In APIA’s view physical congestion on pipelines is not a problem. Investment in capacity is directly related to what the market is willing to commit to and therefore is able to be financed. A pipeline that is fully utilised at peak times is an optimally sized pipeline.

Additional capacity is generally added as a result of commercial negotiations. It is in the pipeliner’s interest to ensure that all possible demand for additional capacity is aggregated such that the expansion of capacity can be delivered at the most efficient unit cost to shippers (thereby increasing the demand for capacity). This means that shippers seeking smaller tranches of capacity can have that capacity built at a lower cost than as a standalone investment (which is unlikely to be economic for the small shipper).

There would be a material problem if the market was willing to enter into the commercial arrangements that would enable new capacity to be built but that capacity was not built. APIA is not aware that this is an actual issue on any contract carriage pipeline. In contrast, the market carriage arrangements in Victoria make it difficult for shippers to enter into commercial arrangements for new capacity due to free rider problems associated with the allocation of that capacity in the market. In this circumstance, investments in capacity can be delayed until the next regulatory reset

so that the costs of expansion is shared amongst users of the asset through the regulated tariff. This may lead to sub-optimal timing of investment.

Notwithstanding the above issues under the market-carriage model, the fundamental business of the gas transmission industry is building pipeline capacity under negotiated bilateral contracts. There is no apparent reason why a pipeline company would be unwilling to enter an arrangement if it makes commercial sense.

What impact could facilitated capacity trading have on physical congestion?

In a climate of tight gas supply, it is possible that a gas user may seek to leverage its existing supply arrangements and take advantage of high gas prices by selling gas to another user rather than using the gas. In such a circumstance, facilitated capacity trading would make it simpler for such a transaction to occur. However, the reality is that such a transaction is one of gas supply; the gas transportation is incidental to the supply transaction. If this is a transaction the Government wishes to facilitate, the focus should be on the gas supply transaction, not the gas transportation transaction. As the Wallumbilla gas supply hub is established, it may become apparent that facilitated capacity trading has value on the pipelines in the hub's vicinity.

As above, APIA is not aware of any parties holding capacity on physically congested pipelines raising any issues with their ability to trade it.

7. Existing NGR provisions for information on and trading of capacity

The RIS makes no mention of three existing provisions in the National Gas Rules (NGR) intended to improve the transparency of available capacity and facilitate its trade.

The first two provisions apply to covered pipelines and are directly aimed at improving transparency.

NGR 110 requires that a holder of capacity make available information on its level of utilisation, the availability of unutilised capacity and the terms and conditions under which it would trade this capacity if it is requested to do so by any party. This could include Government agencies wishing to understand the issue more closely or any party wishing to gain or increase access to a covered pipeline.

NGR 111 requires that a spare capacity register be maintained by a covered pipeline that advises the level of spare capacity and the terms and conditions under which it is available. The spare capacity register is made available through a company's website.

The third provision is NGR 176, providing a direct facilitation of trade through the Bulletin Board (BB).

176 ***BB Participants may indicate spare capacity available for purchase or capacity requirements***

- (1) At any time, a BB participant may notify other BB users that it has spare capacity for purchase by providing details of the spare capacity to the AEMO in the form required by the BB Procedures.*
- (2) At any time, a BB participant may notify other BB users that it wishes to purchase spare capacity by providing details of the capacity it wishes to purchase to the AEMO in the form required by the BB Procedures.*
- (3) For the avoidance of doubt, a notice given under subrule (1) or (2) and posted on the Bulletin Board by the AEMO is an invitation to treat and not an offer capable of acceptance by another person.*

To APIA's knowledge the notifications enabled under this provision have not been used. This may be because:

- Parties serious about trading are able to execute trades. There is some evidence trading is occurring; or
- No trading is required. This does not seem likely given the representations that led to this RIS and the fact that trading does occur; and/or
- The existence of this notification facility is not widely known. If so, it is appropriate that a more concerted effort to make this BB provision known and utilised is made before higher cost options are pursued.

In any event, evaluation of the status quo must include the recognition that existing provisions in the NGR should be better used before more costly options are considered.

8. The need and potential for market driven solutions

APIA believes increased trading of pipeline capacity should be driven from within the gas market. A market driven approach to trading and flexibility issues is appropriate because:

- Market driven solutions are acknowledged to be more efficient than regulation driven solutions.
- A market driven approach will ensure costs are attributed to the parties deriving benefit from the solutions. If you wish to trade you will have to pay the facilitation service. Regulation services tend to smear the costs across this market inefficiently. The STTM increases the cost of all gas passing through the hubs, whether it is traded or not.
- Market driven solutions are more likely to be timed and targeted appropriately, arising when and where they are needed in response to market signals.

In regard to transmission capacity, there is a further issue that does not appear to have been considered. Unlike gas supply, transmission capacity is not a commodity, it is a service. A commodity can be traded between parties relatively easily, it can be arranged to provide a set quantity at a set location for a set price. To trade a service is less straightforward. There are timing issues, receipt and delivery points to consider, associated services, responsibilities for nominations and deviations and numerous other variables.

Importantly, the trading of services can impact the service provider. There are a number of considerations that are not readily apparent from a bare consideration of capacity utilisation on a pipeline. Some of the unused capacity may be underpinning storage services. Some of it may be required to facilitate maintenance activities. If capacity is being traded without appropriate consideration of the operational issues of a pipeline unintended consequences may occur.

The potential for impact increases as the level of trading increases. It is appropriate that pipeline owners play a key role in the trading of services on individual assets, responding to market need as it arises. Given the pipeline industry derives its revenue from providing the services the market needs, it is reasonable to expect they will seek opportunities to deliver trading services when the market indicates a need for them.

The Henry Hub is an example of a market driven solution, being privately owned and driven by financial markets desire to develop a reliable futures product for natural gas in the US.

Examples of industry driven solutions

APIA is aware that APA Group is currently assessing the business case for a range of options to enable a secondary capacity trading market to develop in the interests of assisting shippers to conduct trades across the pipelines in its network. This work demonstrates the market's willingness and ability to respond to the needs of its participants.

APIA considers that a market-led response such as that being considered by APA Group is more likely to be tailored to the needs of the market and its participants, including by ensuring that the costs of providing trading facilities are commensurate with demand, and that only those that use those facilities pay for it. APIA would like to draw to SCER's attention the independent trading and

brokerage services offered in Western Australia by Gas Trading Australia, <http://www.gastrading.com.au/>. The provision of such services across the majority of WA pipelines further demonstrates the market's ability to respond to genuine needs of its participants. The development of these services in WA is due, in part, to the prominence that natural gas plays in that state's energy mix, both in terms of primary energy supply and as a fuel for electricity generation. Natural gas constitutes 55% of WA's primary energy source (BREE 2013) and fuels 57% of installed electricity generation capacity (CMEWA 2012). This shows that, relative to the total size of WA's energy supply, the natural gas market is deep and has some of the liquidity to be expected in a deep market.

The RIS is correct in stating in its impact statement on page 37 that the impact of any changes to the status quo arising from the process are unlikely to be significant in WA. However, the reasoning is incorrect. The RIS states that capacity utilisation is relatively high in WA pipelines and, thus, trading is unnecessary. Any change to the status quo arising from the RIS will not have an impact in the West as a sophisticated third party trading service already exists.

The eastern natural gas markets are not deep relative to the West or to international markets or the total energy demand of Eastern Australia. The RIS acknowledges there may be insufficient shippers to warrant the establishment of shipping brokers. Whilst the WA gas market is larger relatively in its role in the broader WA energy market, it does not have a notably different number of shippers and is smaller overall than the Eastern market. The ability of brokerage and trading services to emerge in WA implies such services would emerge in eastern markets if the market had developed sufficiently. It might do so in coming years, if the users survive the expected price hike and continue to expand production.

9. Assessment of options

First and foremost, APIA acknowledges the market development of capacity trading and flexibility through:

1. trades between shippers;
2. sub-haulage arrangements between shippers and third parties;
3. pipeline offers of as-available services;
4. development of 3rd party trading services in WA; and
5. investigation of trading services by APA.

APIA also acknowledges efforts to facilitate trade through:

1. the National Gas Rules;
2. the National Gas Bulletin Board; and
3. Short Term trading Markets (STTM).

The increased level of transparency and trading being experienced now in capacity markets should be noted. As such, APIA considers **Option 1: Status Quo** a viable option, particularly in the absence of evidence of materiality of the issue and sufficient detail around other options, let alone well quantified costs and benefits. The maintenance of the status quo will allow industry driven solutions

to arise when and where they are needed, maximising the efficiency of any mechanism and ensuring cost only incurred when they need to be.

There is potential that the status quo can be improved upon through greater utilisation of the existing provisions in the NGR, particularly NGR 176 which enables parties wishing to trade to indicate so on the BB. However, APIA considers the lack of use on BB services indicates the market is better served by industry led initiatives.

Note that this is not a 'no capacity trading' option. Instead it is an option where current trading in capacity can continue, and where market-led developments in capacity trading, such as that being investigated by APA Group, are able to flourish without being foreclosed by a potentially higher cost and more interventionist regulatory option. This is appropriate in a market that is largely characterised by unregulated entities (gas producers, shippers and pipeliners), that has in the past delivered strong investment and efficient market outcomes.

Option 2 proposes improved information provision and standardisation of contractual terms and conditions, without making clear suggestions on what new information would be useful or how standardised contractual terms and conditions would assist trades.

APIA has considered this issue extensively and considers there is no obvious new information enhancements to the Bulletin Board that could be made to facilitate trading. Significant capacity data is already available through the Bulletin Board.

One option is to provide the ability for a pipeline to flag the availability of firm capacity. This would provide an indication of whether or not a pipeline is fully contracted, which may assist market observers. While such information is readily available on either a pipeline's website or via a simple phone call to the commercial contact for a pipeline (available on a pipeline's website), to have this information centralised in one place may be an enhancement.

In the event that the existing BB mechanisms to notify the market of desires for trade are more often utilised, it may also be appropriate to provide the ability to flag the appropriate pipeline or processing facility on the main BB page. In this way, a market observer could readily view all pipelines and see which have parties seeking to sell or acquire access without checking a second page on the BB website.

In any discussion of improved information APIA considers it necessary to raise the consideration of cost recovery. Information requirements are costly and often fall on pipelines, typically requiring the pipeline to be an aggregator of shipper information. Where there is a real benefit to the market from this information, it is appropriate that the market, at a minimum, cover the costs of its provision. Some proponents of further information obligations hold the inconsistent views that the information has value to the market but that the obligations for its provision should be imposed without compensation, suggesting it has no value.

This is relevant to any consideration of a move to 'real time' information. Pipeline information gathering, monitoring and supporting systems are built to the requirements of the pipeline and its customers. For the most part, this does not include real time capability. Gas transactions are

typically conducted on a daily basis and systems have been developed to accommodate this. There are substantial costs involved with moving to real time reporting and it is not apparent that it would facilitate trade in any meaningful way.

APIA does not consider there is material value in standardised contractual terms and conditions. Any capacity trades have to be made with regard to the underpinning gas transportation agreements (GTAs). There is no obvious way that standardised contractual terms and conditions can adequately account for the unique aspects of each GTA. If it had been beneficial to have standardised contracts then the fact that there are a small number of shippers in Australia, mostly present on multiple pipelines, would have driven development of such contracts.

Further, the suggestion that standardised contractual terms and conditions can be a tool to increase flexibility in the market is misguided. GTAs are specifically tailored to the exact requirements of each customer. They detail a customised blend of firm and 'as available' transportation and storage services across varying injection and off-take points that alter according to the needs of the each customer and the terms of the associated gas supply agreements made with a gas supplier.

More importantly, they reflect the specific risk allocation arrangements appropriate for that shipper and the services it seeks. The customers of a pipeline fall into several distinct categories including: large retailers, small retailers, power generators, large industrial users and miners. Each has completely different requirements for their gas supply. While a large number of conditions in transport agreements can be standardised those specific to risk allocation need to be tailored to the specific of a transaction and the shipper. Conditions relating to creditworthiness are a good example of where standardisation will be difficult. The level and form of financial security required from a shipper will vary depending on the creditworthiness of a shipper.

APIA does not see any obvious benefit deriving to the market from Option 2.

Option 3 proposes the establishment of a voluntary capacity trading platform. APIA is concerned that if the RIS considers it necessary for pipelines to participate in such a platform with the provision of 'as available' services. To be clear, every pipeline already provides 'as available' capacity services. Pipeliners welcome the opportunity to sell it. The lack of take-up of 'as available' capacity is driven by the requirements of the market, not the willingness of pipeliners to sell it.

The BB provides a voluntary trading notification system, for both gas supply and pipeline capacity. This is the lowest cost voluntary capacity trading platform available. To APIA's knowledge, it has never used. This service should be more widely advertised and utilised before more complex platforms are considered.

As noted, third party gas brokerage and trading services have emerged in WA. The services are yet to emerge in the eastern market, suggesting it has limited value at this time. A facilitated trading platform may evolve in time however it is hard to see that a government accelerated solution to capacity will add to any significant benefits. By contrast, the accelerated development of such a platform is likely to foreclose options for a market driven solution. It is to be expected that a trading platform would develop over time as demand for trading increases. By developing in this fashion

issues of low transaction costs and credit support for counterparties will be implemented efficiently. As demonstrated in the WA market, third party trading services do evolve when they are necessary.

In APIA's view, any development of a voluntary trading platform should be market driven, allowing industry to determine when and where trading services are useful and ensuring any costs of facilitated trade are allocated to those parties benefiting from them.

APIA is concerned that the issues set out on page 34 describing the requirement of resolution before a trading platform can be established seem to indicate consideration is being given to a complicated and highly regulated trading platform.

The discussion of incentives to 'encourage' trade further reinforces this concern to APIA. The RIS states that:

'In order for incentives to be effective they would need to be imposed fairly and equally across all holders of primary capacity'

Incentives do not typically need to be imposed on a market. The discussion on this topic leads APIA to consider the voluntary trading platform being proposed is somewhat intrusive or not fully voluntary. By way of recent voluntary market development that is not fully voluntary, the STTM is a 'voluntary' balancing market that imposes obligations and costs on all gas users at a hub, whether they use the STTM services or not.

The contemplation of such an interventionist approach needs to be justified with a demonstrated market failure due to inability to trade. The anecdotal evidence on which the RIS is based is inadequate.

APIA cannot endorse option 3 without substantially more information, including whether a single platform would be established for all BB pipelines or individual platforms are proposed, the 'voluntary' nature of such a platform and an articulated demonstration of the believed benefits of standardised contractual terms and conditions. However, APIA does consider that, when and where appropriate, the gas market will develop its own trading platforms, as has occurred elsewhere. Such market led solutions are more likely to meet the needs of the market, ensure transaction costs are a minimum and allocate those costs to those that benefit from the solution.

Option 4 proposes mandatory trading, either through 'use it or lose it' provisions for pipelines or 'use it or sell it' provisions for shippers. APIA sees no evidence presented with the RIS to justify such an intervention and repeats its concerns regarding the discussion around pipelines. The idea that pipelines do not have motivation or incentive to sell as much 'as available' capacity as possible and must be mandated to do so is fundamentally incorrect.

Conclusion

APIA agrees with the conclusion of the RIS, that at this time the status quo be maintained.

The RIS considers it is appropriate to review the need for capacity trading after the Wallumbilla gas supply hub has been operational for 12 months. Having participated actively in the gas market development reforms of the last decade, APIA believes a longer period is warranted. In our experience, major new market initiatives take more than 12 months to properly establish, with unforeseen issues arising in all recent market developments. It is APIA's experience that the first 12 months of a new market have been spent urgently addressing these issues, with market participants focussing on minimising impacts rather than exploring opportunities to change practice. Indeed, in the case of the STTM, which in Sydney and Adelaide have been operational for 2 and a half years, there is still significant ongoing work to resolve the issue of counteracting MOS, which was identified as a major issue in the first 12 months of STTM operation. In this light, APIA believes a review of capacity issues at least 2 years and preferably 3 years after the commencement of the Wallumbilla gas supply hub is appropriate.

As should be the case with all effective reviews, it is best if an entity other than the designer and operator of the hub conduct the review. The Australian Energy Market Commission is best placed to consider the effectiveness of market development initiatives and their contribution to the National Gas Objective.

Answers to RIS Questions

Most of the questions posed in the RIS are more appropriate for parties engaging or impacted by trade to address.

Question 1: Are there reasons why fuller pipeline capacity utilisation may be either advantageous or not desirable?

APIA considers greater use of pipeline capacity is highly desirable and would lead to great efficiency of pipeline investments. It is clearly in the commercial interests of pipeline owners for this to occur. However, as highlighted in the discussion above, it is in the very nature of most transportation infrastructure that peaks occur and must be serviced. Capacity that is only used in peak times is not underutilised capacity.

In APIA's view, the most efficient use of a pipeline occurs when the throughput of a pipeline is as flat or constant as possible. The most effective way of increasing the efficient usage of a pipeline is to minimise the difference in throughput between peak and non-peak times. This could be done by:

- Encouraging investment in counter-cyclical demand. An example may be the development of peaking gas power generation, typically in use on hot summer days, on a pipeline that experiences large winter demand.
- Encouraging the development of increased baseload gas power generation and new large industrial demand. The development of new, large, relatively flat loads will not reduce peaks but will decrease the differential between peak and non-peak usage, leading to relatively less unused capacity in non-peak times.
- Co-ordinating the downtime of flat loads to coincide with the peaks of cyclical loads. If required maintenance of large industrial loads occurs during peak times where possible, it helps reduce peak capacity requirements.
- Encourage the development of increased storage facilities, so that users and shippers can "flatten" their peak capacity requirements.

Capacity trading will not address these outcomes.

It should be recognised that there are very limited circumstances where facilitated capacity trading would lead to more efficient use of a pipeline. It would require:

- 'contractual congestion' actually being present, with a shipper on a pipeline that has firm capacity they wish to trade;
- a proponent of a new source of gas demand; and
- the inability of the counterparties to execute a transaction.

In the current discussions on pipeline capacity trading, APIA is not aware of any claims being made that there are holders of firm capacity that wish to trade it and are unable to. There are those claiming they cannot access firm capacity through trade, this may well be due to absence of counterparties wishing to trade.

Question 2: In Australia, how easy is it to organise and execute novation and/or bare transfer of pipeline capacity?

As above, APIA is not aware of any transaction issues being raised by holders of firm capacity (shippers). Any issues with the level of trading likely lie in lack of desire to trade capacity away, because it is in use during peak times, not in the execution of transactions.

Question 7: Are there any improvements that could be made to ease the transfer of pipeline capacity?

APIA refers to our comments above on standardised contractual terms and conditions. Given the variety of terms and conditions in GTAs across different pipelines, it is difficult to envisage a set of useful standardised terms and conditions.

Question 10: Would stakeholders be interested in accessing short-term 'as available' interruptible gas transportation capacity?

It is appropriate to also ask: if not, why not?

Question 13. What specific additional volumes of gas would producers be willing to supply into which specific markets?

APIA questions who this gas would be supplied to. As noted, on any day a pipeline is not being fully used, it is because the gas demand is not present in the market.

Question 14: Is there a problem with the way in which unused pipeline capacity is currently being traded in Australia and, if so, what are the key issues that have prevented/made difficult access to unused transportation capacity?

As above, pipeliners are most willing to discuss 'as available' arrangements. It is not difficult to access unused transportation capacity on such a basis.

Question 16: Is adequate market information available so that pipeline capacity can be effectively traded? If not, what specific additional information is required?

APIA has given this question genuine consideration and does not consider there is any additional capacity information that can be made available and will have a material impact.

Question 18: What are the likely advantages, disadvantages, costs, benefits and risks associated with the provision of additional information such as close to real-time data/ex-post data, preferably supported by quantitative evidence?

Daily information is already supplied on the Bulletin Board. There is no apparent benefit of moving to 'real time' information and this approach is likely to involve very significant additional cost.

Question 30: What entity would be the most appropriate to operate a trading platform or auction process?

APIA believes that any trading platform or auction process should be developed and operated by a market participant, either a broker as has emerged in WA or by the owner of a pipeline that the market considers facilitated trading would be useful for. A market driven approach to trading and flexibility issues is appropriate because:

- Market driven solutions are generally acknowledged to be more efficient than regulation driven solutions.
- A market driven approach will ensure costs are attributed to the parties deriving benefit from the solutions. If you wish to trade you will have to pay the facilitation service. Regulation services tend to smear the costs across this market inefficiently. The STTM increases the cost of all gas passing through the hubs, whether it is traded or not.
- Market driven solutions are more likely to be timed appropriately.