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26 March 2015

Mr John Pierce
Chair
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Dear Mr Pierce

APA Group (APA) welcomes the opportunity to participate in the Australian Energy Market Commission (AEMC) review into the East Coast Wholesale Gas Market and Pipeline Frameworks.

APA is committed to the continued development of the Australian gas market. APA sees its role as facilitating the market through provision of tailored services under contract. We believe that this model best meets the direction and intent of the COAG Energy Council Gas Market Vision, and is one that will support the continued development of the gas market into the future.

APA would be pleased to assist the AEMC in the development of its review report and recommendations for the future direction of the East Coast Wholesale Gas Market. Please call Alexandra Curran on 02 9275 0020, if you would like any further information.

Yours sincerely

Peter Bolding
General Manager Regulatory & Strategy

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East Coast Wholesale Gas Market and Pipeline Frameworks Review

APA Group submission

1. Summary

APA Group (APA) welcomes the opportunity to participate in the AEMC East Coast Wholesale Gas Market and Pipeline Frameworks Review.

The eastern Australian gas market is currently undergoing a period of transition due to a number of factors. The most important of these is new demand and the associated tightening of supply arising from the development of the three Liquefied Natural Gas (LNG) export facilities at Gladstone in Queensland, and the impact of the resulting exposure in the domestic market to export parity gas prices.

A key message from stakeholders at the recent AEMC stakeholder consultation session for this review was that the downstream market arrangements were largely meeting the needs of market participants. In the current environment of rapid market change and a need for additional investment in long-lived infrastructure, it is critically important for policy makers to ensure that the current commercial practices in the gas sector that are allowing this investment to occur remain in place.

With this in mind, there are some improvements that could be made to existing market structures.

Short Term Trading Markets

The Short Term Trading Markets (STTMs) were established as a mechanism to facilitate trade at demand centres, as well as a model for balancing markets and a way to lower the barriers to entry for new retailers in the downstream markets.

APA believes that the STTMs have provided effective competitive gas balancing services, and to some extent have provided a mechanism to trade, however there appears little evidence of STTMs increasing the number of retailers due to the significant exposures that can result from the market.

It would appear that the current structure of the STTMs is unnecessarily complex for the primary gas balancing function that they perform. This complexity drives significant market operating costs.

APA considers that the current STTM design could be simplified to become solely a gas balancing market that provides for the competitive provision of balancing services through a tender process. In the first instance, APA considers that this change to the scope of the

STTM could usefully be applied to the Brisbane STTM, as it is in close proximity to Wallumbilla which provides an effective location for wholesale trade.

Declared Wholesale Gas Market

The market and demand conditions in Victoria at the time of introduction of the Declared Wholesale Gas Market (1999) were key determinants of the structure of that market. Many of these conditions have now changed, making the market structure less appropriate for the future development and integration of the east coast gas market.

APA expects there will be further significant investment needed across the east coast market, and that gas flows are and will remain volatile and unpredictable as market conditions change. Existing mechanisms in the Declared Wholesale Gas Market, such as AMDQCC, need to be allowed to operate as intended to signal the need for new investment. Recent regulatory decisions have undermined the ability for AMDQCC to perform this function.

Wallumbilla Gas Supply Hub

In its current form, the Wallumbilla Gas Supply Hub provides a simple and low cost platform for gas commodity trade that is adaptable and expandable to the market's needs. APA believes the Wallumbilla hub has been designed in a way which allows it to operate effectively with the interconnected contract-carriage pipelines, and that this will stimulate the trade of pipeline capacity through the trade of gas.

APA supports the development of hub services to improve the liquidity of the market, and is currently working with market participants and AEMO on the design of these services.

Pipeline Capacity Trading

Pipeline capacity trading provides shippers with an additional way to access or sell contracted but unutilised capacity on existing pipelines, and APA believes that it will become increasingly important and prevalent in the market.

APA, and other Australian pipeline operators, have recently introduced new services and other measures to support additional capacity trading, and to potentially make trades more transparent. APA also notes that there are a number of policy decisions that have been made to support capacity trading that are still to be implemented. These additional measures are expected to make the pipeline capacity market more transparent, as well as lower search and other transaction costs.

These recent and pending changes need to be given time to be implemented and tested before determining whether additional measures may be desirable to stimulate the capacity trading market further.

Possible model for future market development

APA considers that the current market structure is meeting the needs of most participants at a time of major market transition. This is a strong endorsement for the current market structure. In the longer term, however, there may be a case for moving to a consistent market design across the east coast that supports the trade of gas between markets.

APA has done some preliminary work on a future market structure that it believes would be consistent with the COAG Energy Council Vision. In that structure, market liquidity would be concentrated and deepened by rationalising the existing structural elements into two key arrangements:

- Gas supply trading at gas supply hubs located at natural trading points; and
- Simplified market-based gas balancing at demand centres.

Moving to this model would involve transitioning the DWGM to a Gas Supply Hub model supported by contract carriage pipelines, and paring back the existing STTMs to balancing markets, with an additional balancing market created in Victoria.

Importantly, APA does not see this reform as urgent – the current market structure is delivering appropriate outcomes for customers. Over the longer term, however, APA does see value in articulating a direction for the market and putting in place processes that will achieve change as the market develops.

Pipeline Access Regulatory Regime

APA believes that the current pipeline access regulatory regime fits with the COAG Energy Council Vision of a focus on markets and competition, within a supportive and appropriate regulatory environment that provides for efficient investment. It also matches the objectives and rationale of the former National Gas Code, which APA believes are still appropriate.

There are a number of aspects of the pipeline access regulatory regime that could be improved, in particular in relation to redundant asset provisions, speculative capital expenditure investments and the structure of the tariff variation mechanism.

Abbreviations

ACCC	Australian Competition and Consumer Commission
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMDQCC	Authorised Maximum Daily Quantity Credit Certificates
BWP	Berwyndale to Wallumbilla Pipeline
CGP	Carpentaria Gas Pipeline
COAG	Council of Australian Governments
CSG	Coal Seam Gas
DWGM	Declared Wholesale Gas Market
GSH	Gas Supply Hub
LNG	Liquefied Natural Gas
MOS	Market Operator Service
MSP	Moomba Sydney Pipeline
RBP	Roma Brisbane Pipeline
STTM	Short Term Trading Market
SWP	South West Pipeline
SWQP	South West Queensland Pipeline
VNI	Victorian Northern Interconnect
VTS	Victorian Transmission System

2. COAG Gas Market Vision

2.1. Role of Gas Market Vision and AEMC Review

APA Group (APA) welcomes the work of the COAG Energy Council in seeking to articulate a Gas Market Vision that will guide future gas market reform activities, and provide a degree of certainty over the scope and direction of those reforms.

APA sees the role of the AEMC review as taking the statements of general direction and intent set out in the Vision, and describing a policy path for governments to achieve that Vision that is guided by the National Gas Objective in relation to the long term interests of consumers.

APA supports the proposed approach to the review where the AEMC develops a fact base for the review and a gap analysis between the Vision and current market design and outcomes. APA believes that this initial approach offers a good opportunity for matters that are specific to the Australian gas market to be explored and understood, including whether that the Australian market can or will develop into the deep and liquid overseas markets that are so admired.

2.2. Current conditions in the Eastern Australian Gas Market – pipeline flows

The eastern Australian gas market is currently undergoing significant change due to a number of factors. The most important of these is new demand and the associated tightening of supply arising from the development of the three Liquefied Natural Gas (LNG) export facilities at Gladstone in Queensland, and the impact of the resulting exposure in the domestic market to export parity gas prices.

Partly as a result of this new demand, the pipeline sector is managing gas flows from changing and variable gas supply sources, and many shippers are sourcing gas from different suppliers than they have historically.

Shippers have historically matched the terms of their gas supply and gas transportation contracts. Market uncertainty over future gas supply and prices has led to shorter gas sales agreements, meaning the shippers are less able to commit to longer term pipeline capacity contracting arrangements to support investment. Pipeliners are therefore taking on more risks in investments in new capacity in relation to future gas flows after initial contracts end.

There has also been the very recent development of the new gas supply trading hub at Wallumbilla, which has opened up trade and arbitrage opportunities for some shippers.

The pipeline sector has responded rapidly to meet, and in some cases pre-empt, these changing customer needs. For example, in the last twelve months APA has, and continues to, invest in bidirectional pipeline capacity for four of its major pipelines – the South West Queensland Pipeline (SWQP), the Roma Brisbane Pipeline (RBP), the Berwyndale to Wallumbilla Pipeline (BWP). These investments have allowed APA to meet new shipper demand to move gas from southern to northern markets, where previously gas flows had predominantly moved in a single direction on each pipeline.

APA has also invested in new capacity and compression services to provide flexibility for gas movements around Wallumbilla, and north from the Victorian Declared Wholesale Gas Market (DWGM).

Recent investments have been supported by bilateral contracting where those parties that have the best understanding of their needs – the shippers – have negotiated directly with pipeline owners for the capacity they needed at the times they needed it. These efforts have amounted to more than $850 million of investment by pipeline businesses since 2010, with more than half of this investment occurring in the last 18 months. The fact that this investment has proceeded on a mix of regulated and unregulated pipelines shows the strength of the existing access framework and contract carriage market structure applying to the bulk of east coast pipelines.

At the same time as this investment has occurred, new services are being offered by pipeline businesses, including Capacity Trading services and In Pipe Trades to support hub based trading, as well as highly tailored services including Park and Loan, Ranked Priority Firm, and Interruptible services to meet individual shipper needs.

There is, however, another side to the rise of LNG exports. While there has been strong new demand for capacity and services from shippers linked to the LNG developments, the changing gas price dynamics have led to other structural shifts in pipeline capacity markets. Uncertain gas supply and higher gas prices have impacted some industrial and manufacturing shippers, with some decline in demand from these shippers.

Gas fired generators are also finding limited opportunities to economically run their plants due to the excess in installed generation capacity, higher gas prices and relatively low wholesale electricity prices. Notwithstanding this overall trend, gas fired generators have found some recent opportunities to access cheaper ‘ramp up’ gas, though this demand is likely to be transient.

For the pipeline sector, the outcome of the significant increase in LNG demand and its impacts on other sectors has therefore been very mixed and highly unpredictable.

Some pipelines that have previously been fully contracted in one direction are now expected to have variable flows in both directions. Other pipelines, such as the SWQP, will soon be highly physically constrained in one direction, with the potential for sudden and dramatic changes in flow direction should the LNG providers need to move large amounts of gas into the domestic market at short notice. What is clear is that the full start-up of the LNG projects will change pipeline utilisation rates, with some apparently underutilised pipelines becoming more physically constrained.

All of these factors point to a gas market, and a pipeline sector, that is going through a significant transition phase and that market conditions observed today may not be representative of those that will prevail in the future.

2.3. Messages from AEMC stakeholder session

APA notes that a key message from stakeholders at the recent AEMC stakeholder consultation session for this review was that the downstream market arrangements were not ‘broken’, and that they, by and large, were meeting the needs of market participants.

Stakeholders stated that there were features in each of the facilitated markets that they valued, but that there was scope for some improvements to market design. Overwhelmingly, however, stakeholders pointed to upstream matters related to the availability and price of gas, as the key issues in the market right now. This suggests that immediate and wholesale change to downstream market arrangements is not necessary at this stage.

In the current environment of rapid market change and a need for significant investment in long-lived infrastructure, it is critically important for policy makers to ensure that they do not undermine the current commercial practices in the gas sector that are allowing this investment to occur.

Periods of transition inevitability create both winners and losers. It is not the role of policy makers to shield some market participants from market effects in cases where others have pre-empted these changes and taken steps to position their business appropriately. The challenge is to identify these situations, and the resulting self-serving calls for policy intervention for what they are, and make sure that the efficient, prepared businesses are not penalised for others' lack of analysis of the market, and failure to implement an appropriate risk mitigation strategy.

In looking at what actions could be taken to improve the operation of the Australian gas market, APA believes that the key question that the AEMC must ask itself is: What is the problem that we are trying to solve?

A clear description of the problem will allow the AEMC to accurately identify whether the problem rests in downstream markets or elsewhere, and whether it is likely to continue into the future. This approach will also allow the AEMC to assess the appropriate and proportionate scope of solutions to the problem, and when they should be pursued.

This adopts a precautionary approach to market intervention, recognising that the Australian gas market has evolved through private investment and market-led processes, and is well positioned to continue to grow and develop into the future.

2.4. Focus of Vision on markets and competition

APA considers that the COAG Energy Council Vision provides guidance for market development that focuses on competition and market-based solutions. APA believes this is in keeping with Australia's overall approach to competition policy and energy market reform, in particular in relation to:

- Access regulation, which is imposed only where market conditions warrant it; and
- Government involvement in investment and planning decisions, which is generally not part of Australian industry arrangements.

APA is committed to the continued development of the Australian gas market. APA considers that the key elements of an Australian gas market that supports investment and delivers efficient market outcomes are:

1. A strong and competitive primary market for gas supply;
2. Effective, voluntary and low cost markets for the trade of gas that are proportionate to the expected volume of trade in the current market, but able to expand and adapt as the market grows;

3. Effective access to primary pipeline capacity, with access regulation only where appropriate in line with the National Access Regime approach;
4. Contract carriage on pipelines, where shippers can secure access to existing and expanded capacity on a firm basis, as well as access to tailor-made innovative services, to meet their own business needs;
5. No market impediments to the secondary trade in pipeline capacity, and products and platforms designed to support and facilitate low cost trade of secondary capacity; and
6. Low cost and effective disclosure of relevant information that supports the efficient operation and development of the market.

While the first element above is beyond the scope of this review, it appears likely that many of the current concerns voiced by market participants and policy makers are related to the supply and price of the gas commodity, rather than outcomes related to the operation or efficiency of the downstream markets. These issues of gas supply and price cannot be addressed by interventions in the downstream market, but can be usefully identified and acknowledged by the AEMC within this review, perhaps with an eye to potential future policy actions.

Keeping in mind the Vision's focus on markets and competition, the remaining five elements outlined above are based on effective market-based approaches and options that are currently in place across the majority of the east coast market, and which preserve incentives for investment and market growth while supporting efficient outcomes for the community.

3. Short Term Trading Markets

3.1. Objective and value of the Short Term Trading Markets

The Short Term Trading Markets (STTMs) were established as a mechanism to facilitate trade at demand centres, as well as a model for balancing markets and a way to lower the barriers to entry for new retailers in the downstream markets. They replaced balancing functions previously carried out by pipeline operators with a facilitated market arrangement that allowed for some trade of gas between participants.

APA believes that the STTMs have provided effective gas balancing services, while also providing for competitive provision of balancing gas. In particular, the recent move to monthly gas balancing tenders, replacing the earlier quarterly tenders, is expected to provide more opportunities for smaller shippers to bid to provide balancing gas to the market, and further improve competition in providing these services.

Part of the vision for the STTMs was for them to also provide a platform for the trade of gas at demand centres, with shippers being able to source their gas needs directly from the STTM hub. Notwithstanding their success in facilitating the provision of competitive gas balancing services, APA understands that only limited trades between participants have occurred through the STTM hubs in Sydney, Adelaide and Brisbane. As the STTMs primarily operate as balancing markets, only imbalance gas is traded, which usually equates to a very small percentage of total gas throughput. This exposes parties that wish to sell or buy gas purely though the hub to very volatile prices because of the limited amount of 'real' trade that does occur.

It would appear that the current structure of the STTMs is unnecessarily complex for the primary function that they perform (gas balancing). This complexity drives significant market operating costs.

APA notes that the proposed Australian Energy Market Operator (AEMO) STTM budget for 2015/16 is $12.9 million, which translates to a market operator fee of $0.08193/GJ. This fee applies to all gas that is delivered to the demand centres for each hub, even in circumstances where the shipper is in balance. In this respect the STTM fee operates as an effective tax on all gas deliveries to relevant demand centres.

When looking at APA's posted tariffs on both the MSP and the RBP, this market operator fee adds 12.7% to the cost of transportation gas from Wallumbilla to Brisbane, and 8.5% to the cost of transporting gas from Moomba to Sydney.

3.2. STTM ex ante price as a market price signal

Given that the bulk of transactions in the STTM are between related entities who are essentially unaffected by price, the current *ex ante* pricing mechanism does not provide a reliable or accurate indicator as to the underlying value of gas passing through the hub. Essentially a wholesale division of a retailer could sell gas to its related retail entity for any price between $0 and $400 per GJ and effectively be no worse off assuming they don't deviate. This bilateral related party trading significantly reduces any reliance that can be placed on STTM price signals and also nullifies comparison of prices between different markets such as the STTM and Wallumbilla Gas Supply Hub.

3.3. Alternative models for gas balancing

The STTMs currently operate with a daily process for setting an *ex ante* price at which all gas that passes through the hubs is notionally traded. Most gas, however, is traded across the hub by related parties, and if those parties are in balance then they have no exposure to the market price. Theoretically at least, a party could buy or sell gas solely from the hub, however experience with the operation of the STTMs suggest that very little gas is actually traded between unrelated parties[1], perhaps due to the resulting exposure to the *ex ante* price.

Deviations require balancing gas which is provided through the Market Operator Service (MOS). The MOS involves the competitive provision of gas balancing services, where the MOS provider is determined monthly via a contestable process and imbalances are calculated daily and paid monthly by shippers. The MOS is a relatively simple market design for competitive provision of balancing gas.

APA considers that the current STTM design could be considerably simplified by removing the market operator *ex ante* and *ex post* pricing function, which was intended for the trade of gas, and focusing the market on the provision of contestable gas balancing services. Such an approach could see the market operator prepare a monthly MOS provider bid stack through a competitive tender process, which is then allocated by the pipeliner to shipper deviations on a daily basis, and billed on a monthly basis, as is the current process.

This simplified market design would be less costly to operate than the current STTM design, and remove market risks created by the setting of an *ex ante* price and issues such as counteracting MOS. It would also concentrate available market liquidity at gas supply hubs, which arguably have more potential to develop the necessary liquidity over time to allow for some market participant to rely solely on the market for their gas supply.

In the first instance, APA considers that this change to the scope of the STTM could usefully be applied to the Brisbane STTM, as it is in close proximity to Wallumbilla which provides an effective location for wholesale trade.

[1] Deloitte 2013, *Assessment of the East Coast gas market and opportunity for long-term strategic reform*, May, p 44

4. Declared Wholesale Gas Market

4.1. Rationale and conditions for introducing market carriage in Victoria

The market and demand conditions in Victoria at the time of introduction of the DWGM (1999) were key determinants of the structure of that market, and its early success, as set out below.

The DWGM with market carriage was introduced in Victoria at the same time as vertical disaggregation and privatisation, and the introduction of a third party access regime. Immediately prior to its introduction there were no material contracts for gas transportation in the state, and there were no private owners of infrastructure for whom a move to market carriage would involve a removal of property rights. The Victorian Transmission System (VTS) was essentially privatised with an access regime and market already in place. This meant that sovereign risk issues associated with a change in regime and removal of contract-based property rights did not arise as they would now in respect of privately owned, contract carriage pipelines.

There were also physical conditions in Victoria that meant that the DWGM model was suitable for that market.

At the time the Victorian system was essentially an island (that is, the Interconnect, Eastern Gas Pipeline, SEAGas and Tasmanian Gas Pipeline had not been constructed) – it had a single supply point at Longford and all demand was in Victoria, served by a transmission system with over 100 withdrawal points. The transmission system also had significant amounts of unutilised capacity, accompanied by a highly weather dependent demand profile. The system required active balancing to serve peak day demand.

The significant amounts of spare capacity meant that policy makers were focused on the allocation of *existing* capacity to users, rather than ensuring incentives for investment in *new* capacity.

The DWGM also supported the introduction of full retail contestability, by giving smaller retailers equivalent access as incumbent shippers to the market.

This model is considered to have been somewhat successful for the first 10 years of operation, however some key changes to the system and demand over that time has meant that the market model is less suitable to current conditions. These changes are outlined below.

4.2. Current market conditions in Victoria and the east coast

The DWGM now has multiple supply points and significant movement of gas out of the system. This means that a significant amount of gas now traverses the system, and the cost of investment to support that throughput is borne by users within the DWGM.

The addition of this ‘across system’ throughput means that total throughput is now more volatile, as much of the load is not related to users located within the geographic boundaries of the DWGM. The across system throughput is instead related to conditions in other markets, rather than to the consumption needs of Victorian households and businesses. Obtaining regulatory approval for investment to support flows across the VTS

has become more difficult as demand forecast have become less certain (being related to east coast market dynamics). Moreover, the variation in loads creates significant risk for the pipeline owner in respect of the stranding of assets, even where regulatory approval has been obtained.

Further, the VTS can no longer be considered to have significant amounts of spare capacity. Therefore, ensuring effective incentives for investment in new capacity has become relevant. The lack of adequate signals for investment is a recognised shortcoming of the market carriage model that is discussed section 4.3 below.

APA observes that it expects there will be further significant investment needs across the east coast market, and that gas flows are and will remain volatile and unpredictable as market conditions change. It therefore cannot be expected that the outcomes of the market carriage model observed in Victoria in its early implementation will be replicated in eastern Australia in the future.

4.3. Investment in the DWGM

4.3.1. Reliance on the regulatory cycle

Pipeline capacity in the DWGM is essentially a common pool resource. No individual shipper can obtain long term rights to access firm capacity, and no shipper has a strong incentive to underwrite investment in new capacity. Investment in the DWGM is subject to significant 'free-riding'.

This means that decision making to extend or expand the capacities of the pipelines serving the DWGM is essentially delegated to the economic regulator as agent of the users of the common pool resource. The extension or expansion of pipeline capacity is then governed by the regulatory process, and the timing of new investment in capacity follows the regulatory cycle. The timing of investment is not driven by the requirements of pipeline users.

The reliance placed on the regulatory process for investment decisions means that:

- efficient investments may not occur or may be deferred if the Australian Energy Regulator (AER) decides not to approve the proposed investments; and
- any new investment needs that arise during the regulatory period are likely to be deferred until the next regulatory period.

A good example of the first of these points can be found in the proposed expansion of the South West Pipeline (SWP). This expansion was rejected by the ACCC[2] in the 2008-2012 access arrangement review as they perceived there was too much uncertainty surrounding the time at which the investment would be required and the appropriateness of the proposed solution.[3] It was therefore not included in regulated revenue for the 2008-12 access arrangement period. The expansion of the SWP was included again in the regulatory proposal for the 2013-2017 regulatory period, and subsequently approved,

[2] The ACCC regulated most gas transmission pipelines prior to the establishment Australian Energy Regulator.
[3] ACCC, *Final Decision: GasNet Australia – revised access arrangement, 2008-2012*, 30 April 2008, pp. 46-47.

albeit with some 'optimisation' of the option by the regulator based on their perception of future demand.

Apart from adversely affecting the efficiency of the VTS, submissions to the AEMC's Gas Market Scoping Study[4] indicate that the delay in expanding the SWP resulted in:

- congestion on the SWP;
- higher spot prices; and
- some users being exposed to congestion uplift charges.

As this example highlights, the costs of delayed investment will ultimately be borne by users.

4.3.2. Drivers for recent investments in the DWGM

It is important to note that recent investments in the DWGM have been made possible by bilateral contracting arrangements that are ancillary to the operation of the market.

APA has made significant investments in the DWGM in the current regulatory period, both on the SWP, to provide for more gas from Port Campbell to enter the system, and on the Victorian Northern Interconnect (VNI), comprising the pipeline from Wollert to Barnawartha and facilities for additional Northbound gas flows at Culcairn.

The 2013 regulatory decision included approval for some capacity expansion at these locations (referred to as the Gas to Culcairn project), however the resulting capacity built by APA (and corresponding expenditure) has been significantly in excess of the approved amounts. This has involved the installation of a larger compressor at Winchelsea, and significantly more pipeline looping on the VNI. These increases in capacity compared to the approved regulatory case are the result of new demand that emerged very soon after the regulatory decision.

Under the DWGM, the pipeline owner is allocated Authorised Maximum Daily Quantity Credit Certificates (AMDQCCs) associated with new or additional investments in capacity on injection pipelines. AMDQCCs are then sold to shippers by the pipeline operator. Shippers can subsequently trade AMDQCC.

AMDQCC provide shippers with a type of firm capacity on injection pipelines through tiebreaker rights, as well as some protection against uplift charges. AMDQCC provides the pipeline operator with a mechanism to fund investments in additional capacity that may not be possible under the prevailing regulated injection tariff, and to have some level of certainty over revenue in order to make efficient investment decisions.

Historically, APA has sold AMDQCC through an auction process, with tariffs set on the basis of take or pay arrangements reflecting the firm rights that they embody. It is through this process that APA has been able to confidently invest in additional capacity on the SWP, in excess of the approved regulatory case, because revenue for the additional capacity, as well as certainty of throughput, was secured through alternative means.

The AER's most recent access arrangement decision for the VTS has undermined APA's ability to use this mechanism as a way to support investments in injection capacity. The

[4] Katherine Lowe Consulting, *Gas Market Scoping Study – A report for the AEMC*, July 2013, pp. 113-114.

AER's 2013 decision determined that AMDQCC was a reference service, and set a tariff for the service based on the administrative costs of providing the service (which are very low). It also set the tariff on a throughput basis, with no firm take or pay element. APA therefore can no longer gain any certainty of throughput or revenue from its allocation of AMDQCC. This undermines a fundamental aspect of the design of the DWGM that was intended to provide some kind of investment signal and support for capacity rights at injection points.

In respect of APA's recent decision to expand the northbound export capacity of the VTS beyond that approved in the regulatory determination process, this investment was also supported by bilateral contracting arrangements that allowed the additional investment to proceed.[5] In particular, the knowledge that a shipper had committed to a Firm service on the adjoining MSP gave APA some confidence that the shipper requiring additional capacity in the VTS intended to flow gas through the VTS. This meant that APA had sufficient certainty to invest in new capacity in the VTS outside of the regulatory approval process.

Without the certainty of bilateral contracts on the adjoining pipeline, this investment would not have proceeded due to the stranding risk under the National Gas Rules.

APA's investments on the SWP and VNI should not therefore be viewed as 'proof' that investment can be market driven under the market carriage model. These investments were in fact made possible only through supporting bilateral contracts for AMDQCC and for Firm capacity on interconnected contract carriage pipelines, and the certainty these contracts provided to the shipper and the pipeline owner.

4.3.3. Socialisation of investment costs

Because users are unable to secure firm capacity rights under the market carriage model, the costs of any pipeline expansions must be socialised across all users of the network that rely on this capacity. This fact is the main reason why a market carriage model necessarily also involves full price regulation. The socialisation of these costs means that:

- existing users may have to contribute to the cost of the expansion even if their transportation requirements are unchanged and they have already funded their capacity requirements;
- new users (or existing users seeking to transport additional volumes of gas) may not face the full cost of their decision to transport gas; and
- users with volatile demand (such as gas fired generators or shippers seeking to opportunistically move gas across the system) are subsidised by users with more stable capacity requirements such as industrial users.

[5] APA Group 2013, APA signs new gas transportation agreement with EnergyAustralia, Press Release, 23 October. Accessed at http://www.apa.com.au/investor-centre/news/asxmedia-releases/2013/apa-signs-new-gas-transportation-agreement-with-energyaustralia.aspx; APA Group 2013, APA recontracts gas transportation services with Origin Energy on Moomba Sydney Pipeline, Press Release, 26 October. Accessed at http://www.apa.com.au/investor-centre/news/asxmedia-releases/2013/apa-recontracts-gas-transportation-services-with-origin-energy-on-moomba-sydney-pipeline.aspx; APA Group 2013, APA to further expand VIC NSW interconnect, Press Release, 4 November. Accessed at http://www.apa.com.au/investor-centre/news/asxmedia-releases/2013/apa-to-further-expand-vic-nsw-interconnect.aspx

There is therefore a risk under the market carriage model that some users' decisions will be cross-subsidised by other users. Apart from being inequitable, this type of cross-subsidisation will preclude tariffs which contribute to allocative efficiency because users – both the users driving the investment, and existing users – do not pay prices which reflect the costs of service provision.

4.4. Transportation between DWGM and Interconnected pipelines

There has been a historical problem with transportation between the DWGM and interconnected pipelines where shippers were unable to match AMDQ within the DWGM with firm transportation rights on interconnected pipelines. This issue was addressed in 2014 through an AEMO Procedure change.

This Procedure change was a significant step forward in supporting flows across the DWGM and into interconnected pipelines. It has allowed APA to provide services to shippers that more closely resemble those that can be offered by its competitors, in particular the Eastern Gas Pipeline for services to Sydney.

Other market integration issues remain.

As a result of market based allocation of capacity, organic increases in demand in parts of the VTS impact the capacity elsewhere in the system. The impact, driven in large part by AEMO's Operating Procedures, is that contracted AMDQ capacity at Culcairn is 'eroded' as demand increases within the VTS. This means that users in Victoria are effectively free-riding on investments in additional capacity at Culcairn that must be continually 'topped up' by new investment in order to maintain allocated (contracted) AMDQ levels. This type of erosion of shipper rights does not occur on contract-carriage pipelines, and is a factor that contributes to both inefficiency in the allocation and investment in new capacity within the DWGM, and issues in transporting gas across the DWGM into interconnected pipelines.

Furthermore, AEMO's interpretation and application of system security requirements in the National Gas Rules for the DWGM, and AEMO Procedures, which focus on security within the DWGM and not beyond its borders, bias market operation towards meeting Victorian gas demand. This means that AEMO makes gas supply and allocation decisions in the name of system security for the DWGM, which under the Rules they must maintain, that prejudice gas supplies to other markets, in particular gas supplies to New South Wales. APA does not consider that this outcome is consistent with the efficient operation of the east coast gas market as a whole.

4.5. Operation of the transmission system

The DWGM involves a separation between system operation and infrastructure ownership and investment. It is worth noting that this is not a necessary characteristic of the market; it is possible for the DWGM to operate where the transmission business operates its assets, and the market is operated by a separate market operator that directs the pipeline owner on the volumes of gas to be transported and the location to which gas is to be transported.

APA observes that AEMO is a highly conservative market operator, which has the effect of limiting the amount of capacity that is made available within the DWGM. This

conservatism appears linked to the separation between financial commitments to system capacity (which are made by APA as asset owner), and the operation of the assets by AEMO.

As AEMO has no financial exposure to efficient asset utilisation (and capital outlay), it has no incentive to maximise utilisation. Instead, AEMO has a bias towards a conservative formulation of system security that pushes it to prefer system capacity outcomes that assume that there is no efficient level of unserved demand, including the potential for voluntary curtailment in some market circumstances. This manifests as a preference for redundant compressor capacity, conservative operation of compressors, and highly improbable formulations of likely demand to determine system capacity (for example, using an assumption of multiple, consecutive 1 day in 20 year demand days to determine system capacity). This conservative system operation is another source of inefficiency in the current application of the DWGM.

5. Wallumbilla Gas Supply Hub

5.1. Purpose and scope of the Wallumbilla Gas Supply Hub

The Wallumbilla GSH market design is based on the contractual transfer of gas between willing traders. In its current form, the Wallumbilla GSH provides a simple and low cost platform for gas commodity trade that is adaptable and expandable to the market's needs. APA believes the Wallumbilla hub has been designed in a way which allows it to operate effectively with the interconnected contract carriage pipelines, and that this will stimulate the trade of pipeline capacity through the trade of gas.

5.2. Further development of the Wallumbilla Gas Supply Hub

The Wallumbilla GSH currently trades at three separate nodes, reflecting the physical infrastructure in place at the Wallumbilla compound, which limits the scope of free flow of gas across the three nodes. This has been identified as a factor that may limit available liquidity at the Wallumbilla GSH, as gas can only be traded on each individual pipeline, and not across the pipelines.

In determining the scope of this problem and the likely market impacts of its resolution, it is important to note both the current amount of gas that is passing through the GSH (as opposed to the Wallumbilla compound), and the views of market participants as to the scope of the problem arising from having three separate trading nodes.

5.2.1. Gas volumes at Wallumbilla and within the hub

Wallumbilla was chosen as the site for the GSH as three major transmission pipelines meet at this site, with a number of separate delivery points related to each pipeline 'node' including connection to production facilities associated with the new LNG producers.

This site has historically been a location for significant gas flows, and these are expected to increase dramatically in the next twelve months and continue at high levels in the future. The Wallumbilla compound has averaged gas throughput of around 145TJ per day. As the Wallumbilla compound is a gas transit location (no gas is actually consumed or produced at this site), all gas that currently enters the Wallumbilla compound is transferred to one or other of the interconnected pipelines. This means there are currently significant compression and other facilities on site for the transfer of gas between the pipelines interconnecting at Wallumbilla. These facilities provide services that are contracted to shippers on a Firm basis in line with their needs to transfer gas across the compound. These services are also offered on an As Available basis when they are not fully utilised under Firm contracts.

Gas traded through the Wallumbilla GSH represents a relatively small proportion of gas that traverses the hub. Since the start of the Wallumbilla GSH, approximately 4% of gas passing through the Wallumbilla compound has been traded through the GSH. Some trading of gas between shippers using the RBP also takes place at the In Pipe Trade point, and not all of these trades are executed through the Wallumbilla GSH itself.

These facts show that, while the Wallumbilla GSH is an important market development, at this stage the GSH and its level of trades is only a proportion of both:

- The actual amount of gas that passes through the Wallumbilla compound; and
- The actual amount of gas trading that occurs on a daily basis at the location.

It is therefore important to ensure that any interventions at this site are proportionate to actual shipper needs for facilitated market transactions, and the extent that the three separate trading nodes are currently inhibiting participant trading activity.

5.2.2. Needs of market participants at Wallumbilla Gas Supply Hub

Hub services refer to the suite of services that would be needed at Wallumbilla in order to combine the current three trading nodes into one.

AEMO is currently undertaking work on the development of 'hub services' at Wallumbilla. As part of this process, AEMO conducted a survey of ten market participants (including eight participants that are currently registered at the hub and two which are not) and asked them about their access to services at Wallumbilla and market needs.

In that survey, seven participants responded that they currently had access to 'hub services' at Wallumbilla, and six confirmed that access to capacity at the Hub had never affected their ability to trade. This outcome appears to reflect that, while the Wallumbilla GSH operates at three separate nodes, the majority of shippers operating at Wallumbilla have access to hub services under contract to the extent that they need them, and therefore do not require the purchase of hub services through the GSH.

It is therefore important to ensure that any further intervention to develop the Wallumbilla GSH reflects that the majority of participants already have access to services in place to trade gas across the hub.

Notwithstanding the above factors, APA considers that there is value in developing hub services at Wallumbilla for existing and any future shippers that currently do not have access to contracted services. Demand for these services, however, is expect to be limited, as most current shippers have indicated that they have access to the services they need.

5.2.3. Development of hub services at Wallumbilla Gas Supply Hub

As noted above, AEMO is currently undertaking work on the development of a single trading product at Wallumbilla. Complementing this work, APA is working on the development of a hub service to apply at Wallumbilla that would allow trading across the three pipelines and integration of the three trading nodes into a single point.

APA believes that a simple hub service provided by APA at Wallumbilla, that can be accessed by shippers that do not already have access to services at the Wallumbilla compound, would assist the market and represent a relatively low cost solution that would increase available market liquidity.

The hub service would involve potential combinations of compression and/or redirection services that may be needed to execute a trade across Wallumbilla GSH. If and when gas volumes traded through the Wallumbilla GSH grow to a sufficient level, there may be a

case for physical expansion of the site to provide for more firm access to hub services. Demand for hub services will provide a signal for this investment.

5.3. Application of the hub model at other locations

APA is not able to comment on likely market demand for a hub at Moomba. APA observes that the incremental costs to implement an additional hub appear to be relatively small, however its potential impact on liquidity at Wallumbilla should be assessed before proceeding.

APA has been working with AEMO on options for a second hub located at Moomba, including market design and the provision of hub services. APA observes that this site and available pipeline connections are far less complex than Wallumbilla, making the development of any hub services that may be needed for efficient market operation more straight forward.

6. Pipeline capacity trading

6.1. Drivers of pipeline capacity trading

Policy makers and market participants have identified the importance of ensuring there is scope for pipeline capacity trading in the current market arrangements.

Pipeline capacity trading provides shippers with an additional way to access contracted but unutilised capacity on existing pipelines. For the market as a whole, capacity trading could improve pipeline utilisation, avoid otherwise inefficient capacity expansion, and provide shippers the ability to trade out of long term positions, potentially making them more likely to enter into Firm capacity contracts that provide pipeliners with the certainty they need to invest.

In particular at times of market transition, capacity trading could provide opportunities for shippers to manage their positions in a changing market environment. To be successful, however, there needs to be willing counterparties, some of whom have an interest in selling capacity on the market, and others who have an interest in taking up the capacity that is offered on the market.

Australian gas market is not particularly deep. There are relatively few contracting parties on each pipeline and not all of these parties will be willing or able to participant in a trade. A lack of trading activity may therefore be a sign of the limited depth of the market, rather than a fundamental regulatory barrier to such trades.

Another factor to consider is the nature of demand, and in particular, the nature of any unmet demand. Much of the observed 'underutilisation' of pipeline capacity relates to capacity utilisation outside of peak periods. Pipelines are sized to meet the firm needs of contracting shippers, and these needs can vary over time. It is shippers that determine the level of capacity they need, including any flexibility in their supply arrangements and plant.

APA observes that at peak times, many otherwise 'underutilised' pipelines are physically constrained. Shippers on these pipelines would therefore only be willing to trade capacity at off peak times. Demand for this capacity then depends on there being shippers with needs only in the off peak times.

This matter was investigated by NERA Economic Consulting as part of the COAG Energy Council Regulatory Impact Statement process on enhanced capacity trading. NERA found:

> … there appears to be considerable demand for capacity on pipelines that are fully contracted. As would be expected, demand for capacity is greatest at the times it is most utilised. It is important to note that whilst a pipeline may exhibit low levels of utilisation for prolonged periods throughout the year, it is the demand for capacity on that pipeline at peak times that may be of greatest relevance to potential shippers—there is no quantity of capacity at off peak times that can be substituted for capacity at peak times of the year.
>
> Our qualitative reconciliation of available capacity and demand on each pipeline reveals that:
>
> - there is unlikely to be significant demand for most available capacity on most pipelines because the periods where capacity is available do not align with expected capacity demands; and

- where there is demand for capacity, it appears to be coincident with periods of limited availability of capacity.

In other words, we have not found any evidence to support a conclusion that there is significant un-met demand for available pipeline capacity.[6]

APA is aware that pipeline capacity trading is occurring between shippers, however this activity is not visible to policy makers as it occurs on a bilateral basis and appears as firm utilisation of the pipeline (that is, it cannot be distinguished from primary capacity utilisation).

APA, and other Australian pipeline operators, have recently introduced new services and other measures to support additional capacity trading, and to make trades more transparent. APA also notes that there are a number of policy decisions that have been made to support capacity trading that are still to be implemented, which are also expected to make the pipeline capacity market more transparent, as well as lower search and other transaction costs. These initiatives are discussed in more detail below.

6.2. Current and pending arrangements to support capacity trading

6.2.1. Existing regulatory arrangements

Pipeline capacity trading is not a new concept – the Gas Access Regime under the National Gas Law, and the National Gas Code that preceded it, included provisions to support capacity trading through ensuring that the terms and conditions applying to covered pipelines allow for trading, and that information is available to the market that supports trading.[7]

APA applies the capacity trading clauses that are required under the access framework to all of its gas transportation agreements through its standard contracting arrangements. APA also publishes on its website registers of spare capacity for each of its regulated pipelines, and these are updated regularly to reflect changes to contractual positions.

There is also significant public information currently available through the Bulletin Board that supports capacity trading.

Daily information on east coast gas pipeline utilisation has been published on the National Gas Market Bulletin Board since 2008. This information, however, has been difficult to access due to the structure of the Bulletin Board operated by AEMO. Information currently provided to (and published on) the Bulletin Board includes:

- Pipeline nameplate capacity
- Seven day outlook for Pipeline capacity;
- Seven day outlook for Nominations;
- Actual pipeline deliveries; and
- Linepack adequacy information.

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[6] NERA Economic Consulting 2013, *Analysis of Policy Options to Facilitate Enhanced Gas Transmission Capacity Trading: A report for the Standing Council on Energy And Resources*, 11 November, p 35

[7] See Rules 105, 106, 110 and 111 of the National Gas Rules

The Bulletin Board is currently being redeveloped to improve the accessibility of available data, and to improve its useability and relevance to the market. APA is a key participant in this process.

6.2.2. New and existing APA initiatives

APA Capacity trading service and website

APA has developed a capacity trading website and associated Capacity Trading Service that is available on its major east coast contract-carriage pipelines.

The capacity trading website is intended to operate as an information portal where any person can access detailed information on available capacity, nominations, utilisation, trading opportunities (bids and offers) and contact details for trading parties for APA pipelines. The website can be found at http://capacitytrading.apa.com.au/.

The information posted on APA's website is able to be used to conduct bare transfers (usually without APA's involvement), or the trading parties can choose to use APA's Capacity Trading Service which offers an operational capacity transfer facility, where APA will manage pipeline nominations and allocations directly with the capacity buyer. Further details of APA's Capacity Trading Service can be found at Attachment A.

APA has also posted a number of short term Firm capacity offers on its capacity trading website for pipelines interconnected with the Wallumbilla GSH. These offers are intended to help stimulate the capacity trading market.

APA considers that these market-led initiatives are important to the development of the secondary capacity market. APA believes that its Capacity Trading Service, and the similar products developed by other pipeline businesses, addresses an existing barrier to capacity trading, being the administrative complexity and risk of managing shipper nominations, allocations and imbalances on behalf of the trading counterparty.

While this service has seen limited initial take-up, a number of shippers have elected to include this service within their contracts with a view to conducting future trades. The limited take up of this service to date may be due to most shippers currently having in place contracts that meet their capacity needs. APA would expect that growth in gas trades at the Wallumbilla GSH, which has only been in operation for twelve months, would drive further capacity trading. The full start-up of the LNG facilities is expected to provide the impetus for this growth.

While APA believes that there is scope for the capacity trading market to develop, the limited market interest in capacity trades suggests that modest market arrangements to support capacity trading are appropriate at this stage. APA intends to continue to explore opportunities to expand its website in respect of the scope and accessibility of information to further support the market.

Standardisation of contractual arrangements

APA has developed a standard gas transportation agreement (GTA) that it uses for all its negotiations. The standard GTA is also the basis for approved access arrangements for all regulated east coast contract carriage pipelines. The existence of standardised terms between shippers across pipelines (regulated and unregulated) means that those shippers

can more readily trade capacity, either through bare transfers or through assignment, and there are only limited differences (usually shipper initiated) between arrangements applying to shippers. A plain English version of this contract is available on APA's capacity trading website.

It should be noted, however, that fully standardised contractual arrangements and services are not necessary for capacity trading. A capacity trade involves the trade of a particular part of an existing contractual arrangement, being firm capacity between two points. Other elements of the primary contracts are not traded. For example, under bare transfers the primary contract holder is still responsible for payment, and liability and force majeure provisions continue to attach to the primary contract holder.

APA's Capacity Trading Service creates standard contractual terms that can be inserted into any existing transportation contract and provide for the trade of the firm capacity right. In this respect, standardisation of contractual arrangements to support capacity trading has already been achieved for all APA contracts.

As noted below, AEMO has also completed work on a standard contract for the bilateral trade of capacity between shippers as a bare transfer. The intent of this contract is to reduce transaction costs for shippers to conduct a bare transfer, by providing a boilerplate agreement for that trade that shippers can use.

6.2.3. Pending capacity trading initiatives

A number of policy initiatives have already been agreed to support capacity trading, however many of these are still to be implemented. As an outcome of a recent consultation and Regulatory Impact Statement process, the COAG Energy Council determined that the appropriate, proportionate course of action to support the capacity trading market at this stage was:

- Redevelopment and refresh the existing National Gas Bulletin Board;
- Additional information disclosure through the Bulletin Board that would support capacity trading; and
- Development of a standard capacity trade contract that shippers could use to conduct bare (or operational)transfers.

Of these initiatives, only the last one has been completed.

Stage one of the redevelopment of the Bulletin Board has been completed, and APA considers that the new platform provides a simpler and clearer representation of the market. Further work is still underway, however, on the definition of demand zones and the appropriate aggregation of data to accurately reflect pipeline flows, particularly for bidirectional pipelines. APA has been working closely with AEMO on this matter, however it understands that the necessary changes may not be in place for a further twelve months.

APA understands that the COAG Energy Council will shortly submit a rule change proposal to the AEMC on additional information provisions to support capacity trading. This process is also expected to take twelve months before it is implemented.

APA made a comprehensive submission to the COAG Energy Council Consultation Paper on information to support enhanced capacity trading. APA's submission, alongside that prepared by the Australian Pipeline Industry Association on behalf of the gas transmission sector, included suggestions for additional information that could be published on the Gas Market Bulletin Board, including details of spare (uncontracted firm) pipeline capacity for all pipelines, and a list of the holders of gas transportation contracts on each Bulletin Board pipeline. APA considers that these two additional areas of transparency would further support pipeline capacity trading, and the development of the gas market more generally.

APA considers that a list of holders of contracts for each pipeline, along with contact details, will support capacity trading by reducing the search costs of identifying potential trading partners.

APA further considers that publication of spare (uncontracted) capacity for each pipeline will support capacity trading by clearly listing Firm capacity available in the primary market. Alongside the existing publication of forecast pipeline utilisation, this development would allow the Bulletin Board to give existing and prospective shippers a clear picture of all available capacity in both the primary and secondary markets, including available Firm, As Available, Interruptible and secondary capacity.

6.3. Capacity trading – next steps

APA considers that the recent market-led work on capacity trading, as well as implementation of the already agreed or proposed measures described above will be important in supporting the capacity trading market. It would be premature to conclude that these new and agreed interventions have failed even before their full implementation, which is the implication of some suggestions made by market participants to move immediately to highly interventionist approaches such as 'oversell and buyback' schemes or 'use it or lose it' arrangements.

These types of regulatory interventions were shown through the Regulatory Impact Statement process to have high costs and only limited prospect of success. APA also considers that they are not well targeted at the addressing the particular issues faced in the Australian market and may in fact introduce other risks to the investment model that has been so critical in developing infrastructure to date.

APA has a strong belief that the secondary markets for gas and capacity will develop over time, given stable regulatory and market structures delivered through clear policy direction. Uncertainty over the future market design, and in particular the prospect that policy makers may suddenly change market arrangements and undermine commercial positions, is a clear barrier to confident investment in new capacity and the development of long term market behaviours (such as confidence in longer term financial products) that policy makers wish to encourage.

7. Access regulation

7.1. Gas Access Regime model

The Gas Access Regime provides for a negotiate/arbitrate approach that characterises the National Access Regime.

Under both access regimes, there is a test for regulation or 'coverage', and that test is similar across both the National and Gas Access Regimes. Importantly, this test for coverage allows for pipelines and networks that do not meet the criteria to be or remain uncovered. Reasons can include that a pipeline does not have market power as it is operating in a competitive environment, or that access regulation will not increase the efficiency of the market by increasing competition in dependent markets, as an example.

The east coast of Australia has a mix of fully regulated, lightly regulated and unregulated pipelines and some shippers have contracts across pipelines in all three categories.

A second aspect of the gas access regime, which is also shared with the national access regime, is the primacy of contract. Under the National Gas Law, a regulated pipeline service provider and a shipper are free to enter into contractual arrangements that differ from the prevailing access arrangement if they choose to do so.[8] The access regime does not limit those arrangements except in relation to any queuing requirements that may apply to fully regulated pipelines.[9]

Both of these aspects of the gas access regime places the majority of gas pipelines[10] under a predominantly commercial operating environment, where regulation operates as a backstop or protection for shippers where necessary and appropriate. These regulatory protections for shippers apply through three principal means:

- For uncovered pipelines, the threat of regulation through the coverage process;
- For light regulation pipelines, the threat of an access dispute and resulting arbitration where the regulator sets prices or terms; and
- For full regulation pipelines, through the availability of one or more reference services on a pipeline at the reference tariff.

Importantly, access regulation across contract carriage pipelines does not limit the services that shippers can access to meet their individual business needs.

APA believes that this approach fits with the COAG Energy Council Vision of a focus on markets and competition, within a supportive and appropriate regulatory environment that provides for efficient investment. It also matches the objectives and rationale of the former National Gas Code, which APA believes are still appropriate.

[8] Section 322
[9] Section 135
[10] The exception is the VTS

7.2. Application of the regime

APA has identified a number of shortcomings in the current application of the gas access regime that could usefully be considered by the AEMC in its review.

7.2.1. Redundant asset provisions

The first matter relates to the potentially broad scope and application of the redundant capital provisions under Rule 85 of the National Gas Rules. APA does not consider that it is appropriate to have redundant asset provisions apply to capital investment that have been approved by the regulator as compliant with Rule 79. These risks are not faced under the electricity access regime.

APA has a particular concern where redundant asset provisions apply under the market carriage framework. Under market carriage, the transmission investor has no ability to manage or secure capacity commitments from shippers, and shipper needs can change considerably over time exposing the pipeliners to considerable unmanageable redundant asset risks. This is particularly prevalent in the DWGM where current investment is related to shipper demand to transfer gas through the market. A change in gas contracting approach by shippers could reduce throughput and increase the risk faced by the transmission investor for redundant assets. This operates as a further significant barrier to investment in the DWGM.

7.2.2. Speculative capital expenditure account

The gas access regime includes the concept of a speculative capital expenditure account. The account is intended to hold investments in non-conforming capital expenditure, which can be rolled into the regulated capital base at a later date should the investment become conforming. The idea behind the account is to encourage pipeliners to invest in spare capacity, however, to APA's knowledge, this mechanism has never been used.

APA questions whether there may be changes that can be made to the rules to make use of the account more flexible and effective in supporting riskier investments. Some relevant questions may be:

- Does the account need to be limited to capacity investments, or can it relate to any expenditure that is made that does not satisfy Rule 79 at the time it is made? This could include investments in advanced IT capabilities, safety standards that are arguably beyond current requirements, or other preparatory investments such as in bidirectional pipeline capability; and
- Should the regulator be required to set a rate of return for investments in the speculative capital account up front, and with an assumption that an additional risk premium would apply to those investments as they are speculative in nature?[11]

[11] APA sought an up-front risk premium for investments that entered the speculative capital expenditure account as part of its 2013-2017 VTS access arrangement proposal. The AER's draft decision determined not to set an up-front rate of return for the account, but instead to set the rate after the investment has been made (pages 163-4). APA considers that this approach exposes the service provider to the risk of truncation of returns and provides no certainty that a higher rate will be applied to reflect the higher risk of these investments.

Further development of this account and its rules could assist in supporting pipeline investment on regulated pipelines in uncertain environments by providing an avenue through which investments rejected by the regulator could enter the regulated capital base at a future date if conditions change and those investments were later considered to be prudent.

An upfront risk premium would provide certainty to service providers that the regulator will not asymmetrically truncate returns from riskier investments, as APA considers that there may be a tendency to consider such investments low risk (with a resultant lower rate of return), simply by virtue of the fact that they are entering the regulated capital base.

7.2.3. Gaps in the operation of the tariff variation mechanism

The current tariff variation mechanism (Rules 92 and 97) only provide for tariffs to be varied in relation to costs incurred within the access arrangement period. This effectively limits the tariff variation mechanism to cost pass through events that occur within the period, and which can be reflected in tariffs in full within the period. This creates a high level of uncertainty over events that occur in the final year of an access arrangement period, where there is no opportunity to vary tariffs before the end of the period, or for very costly pass through events, where full reflection of costs in perhaps only one or two remaining years of the period would cause price shocks to customers.

APA considers that there is value in considering whether the tariff variation mechanism, in particular in relation to cost pass through events, should be more flexible by providing for carry over mechanisms for the recovery of costs that are incurred in one access arrangement period, but cannot be fully recovered in that period.

8. Conclusions and recommendations for future market structure

8.1. Focus on competition and market-based solutions

During the last two decades, the Australian gas market has grown on the basis of private sector investment and market-led development. This has been supported by an access regime, and other market structures, that put a focus on commercial arrangements and private risk management. This approach appears appropriate in an east coast gas market where there are significant risks over future demand. The alternative appears to be the imposition of regulatory structures that shift that risk, mainly related to throughput, on to all customers regardless of whether they contribute to that risk.

There is a current and continuing need for infrastructure investment in the east coast gas market. Continued investment will provide the basis for further competition in the market, potentially through new gas supplies from the Northern Territory or CSG developments in New South Wales, Victoria or South Australia.

The current experience of the market shows that investment is best supported by arrangements that allow for the allocation of gas and capacity via contract. The development of secondary markets for gas and capacity, underpinned by these contracts, provides avenues for trade and Australia now has structures in place, such as the Wallumbilla GSH, to allow these markets to develop.

These structures are very new and will further develop with time. Importantly, the financial products and futures markets that would support a potential step change in market liquidity cannot be developed in an environment of constant policy change, or even one where there is a threat of substantive policy change.

It is therefore critical that policy makers commit to a particular approach to gas market development that will allow the market to resolve issues through market-led initiatives without the threat of policy or regulatory intervention that would erode confidence in investment and future market arrangements.

8.2. Recommendations for immediate consideration

As discussed in more detail throughout this submission, APA considers that there is scope to improve the operation of existing facilitated markets through the following actions:

1. Streamline the operation of the STTMs by making them solely gas balancing markets. This change can be implemented in the first instance at the Brisbane STTM, due to its proximity to Wallumbilla GSH as a locus of gas trades;
2. Reinstate the effectiveness of AMDQCC in the DWGM as a mechanism to signal the need for, and to support, new investment in the market by making it clear under the rules that AMDQCC is not a pipeline service;
3. Address systemic aspects of the DWGM that lead to a bias towards Victorian system security at the expense of gas flows to other jurisdictions, in particular New South Wales;
4. Endorse the market-based development of hub services to support the integration of the three Wallumbilla GSH trading nodes into one;

5. Accelerate the implementation of agreed reforms to support pipeline capacity trading, including:
    a. Reform of Bulletin Board demand zones to provide a more accurate picture of pipeline flows;
    b. Rapid consideration of Rule changes shortly to proposed by the COAG Energy Council;
6. Review the aspects of the gas access regime listed in section 7 to address inappropriate regulatory risks related to investments (redundant assets and speculative investment) and uncontrollable costs (cost pass through); and
7. Consider signalling a long term market design that supports competition and market-led development and investment through a GSH model supported by contract-carriage on pipelines (detailed further below).

8.3. Possible model for future market development

APA considers that the current market structure is meeting the needs of most participants at the time of major transition. This is a strong endorsement for the current market structure.

In the longer term, however, there may be a case for moving to a consistent market design across the east coast that supports investment and the trade of gas across markets. The current structure with its three markets, each facilitating gas trade within its sphere, does not appear efficient and does not take advantage of potential scope to improve overall market liquidity through an alignment of markets and trading products.

APA has done some preliminary work on a future market structure that it believes would be consistent with the COAG Energy Council Vision. In that structure, market liquidity would be concentrated and deepened by rationalising the existing structural elements into two key arrangements:

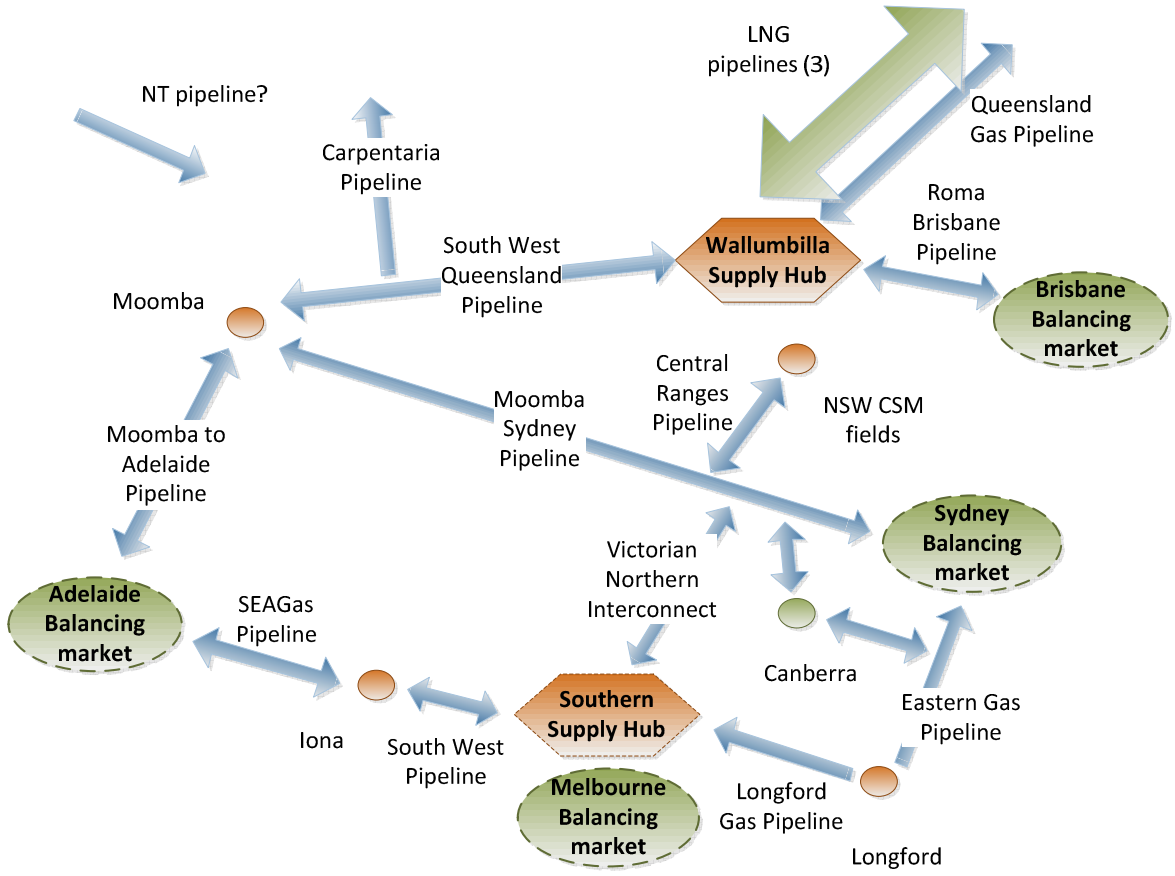
- Gas supply trading at gas supply hubs located at natural trading points; and
- Simplified market-based gas balancing at demand centres.

Moving to this model would involve transitioning the DWGM to a GSH model supported by contract carriage pipelines, and paring back the existing STTMs to become monthly gas balancing markets (effectively the current Market Operator Service), with an additional balancing market established in Victoria in place of the current balancing functions of the DWGM.

This approach would concentrate all gas trade to these markets, and allow arbitrage between these markets based on similar products and opportunities created by the different demand profiles of the southern and northern markets.[12] This market structure is shown in Figure 8.1 below.

[12] The Victorian market is highly weather dependent, and supports a relatively large domestic load, whereas the Northern market supports a predominantly industrial load, with a flatter load profile but an expectation of future volatility derived from the large LNG operations at Gladstone.

Figure 8.1 – APA alternative future market structure



APA believes that a consistent contract-carriage approach across all pipelines would facilitate the trade of both gas and capacity, which would also be stimulated by the needs of the gas commodity markets. Pipeline investments to support the facilitated markets and general gas demand could be achieved in a simplified regulatory environment that was consistent with the National Access Regime.

Importantly, APA does not see this reform as urgent – the current market structure is delivering appropriate outcomes for customers. Over the longer term, however, APA does see value in articulating a direction for the market and putting in place processes that will achieve change as the market develops.

ATTACHMENT A

APA Capacity Trading Service Fact Sheet provided as separate attachment

FACTSHEET

APA GROUP CAPACITY TRADING

APA Group now offers a new Capacity Trading service to streamline the implementation of trades between sellers and buyers of pipeline capacity. The unique service includes a public web site which provides a platform for sellers and buyers to advertise offers and bids for capacity, as well as summary information about pipeline utilisation and trading activity.

Pipeline capacity and trading

Pipeline capacity refers to the right to transport gas through a transmission pipeline. APA Group (APA) is the first Australian pipeline company to offer a streamlined service for the transfer of capacity between shippers (users of gas transportation services). This service provides benefits to shippers by simplifying the implementation of trades, preserving confidentiality and eliminating the need for lengthy negotiations.

To facilitate this trading process, APA Group has created a public web site where shippers can advertise the quantity of capacity that they want to buy or sell. The web site is updated daily and also includes current and historical trading information and pipeline utilisation information. Visit the web site at **http://capacitytrading.apa.com.au**.

Background

Australia's gas market is changing rapidly, and the needs of shippers are changing with it. One of the ways APA Group has responded to customer needs in this dynamic environment is the development of the Capacity Trading service which improves market flexibility and transparency for buyers and sellers of gas, helping them source and utilise pipeline capacity to transport gas.

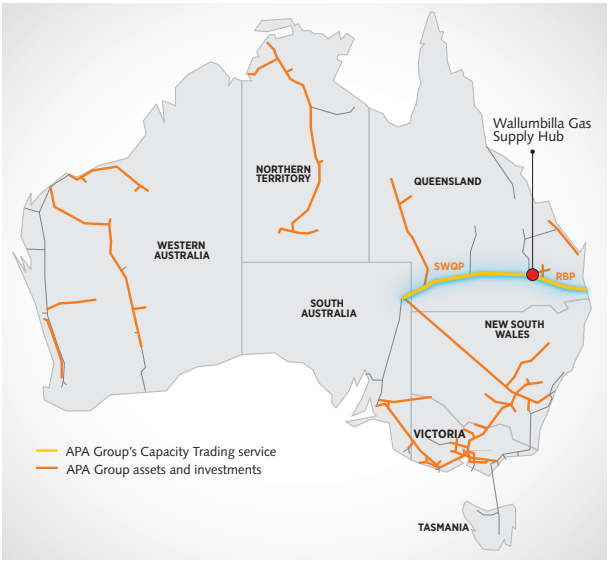
APA Group's Capacity Trading service was developed in consultation with market participants and addresses key barriers to the trading of short-term pipeline capacity. Shippers are still free to implement trades using traditional approaches and not use the new service.

The Capacity Trading service follows the introduction, by APA Group, of In Pipe Trades and a number of other services to aid the development of the gas market. In Pipe Trades assists shippers to implement bilateral trades of gas by facilitating the swapping of gas within a pipeline.

Both services complement and support the Wallumbilla Gas Supply Hub that commenced in March 2014.

Where is the service offered?

Capacity Trading will be offered nationally on APA Group's pipelines. It is currently in operation on two of APA's east coast gas grid pipelines – the South West Queensland Pipeline (SWQP) and the Roma to Brisbane Pipeline (RBP). These are the key pipelines servicing the Wallumbilla Gas Supply Hub.



Benefits of capacity trading service

APA Group's Capacity Trading service assists shippers to buy and sell firm forward-haul capacity and to transfer that capacity in the APA Grid customer portal (customer management system). The new service has several benefits not available from the traditional method of implementing capacity trades. The APA Grid customer portal preserves the confidential nature of the individual buyer's and seller's information about the utilisation of that capacity.

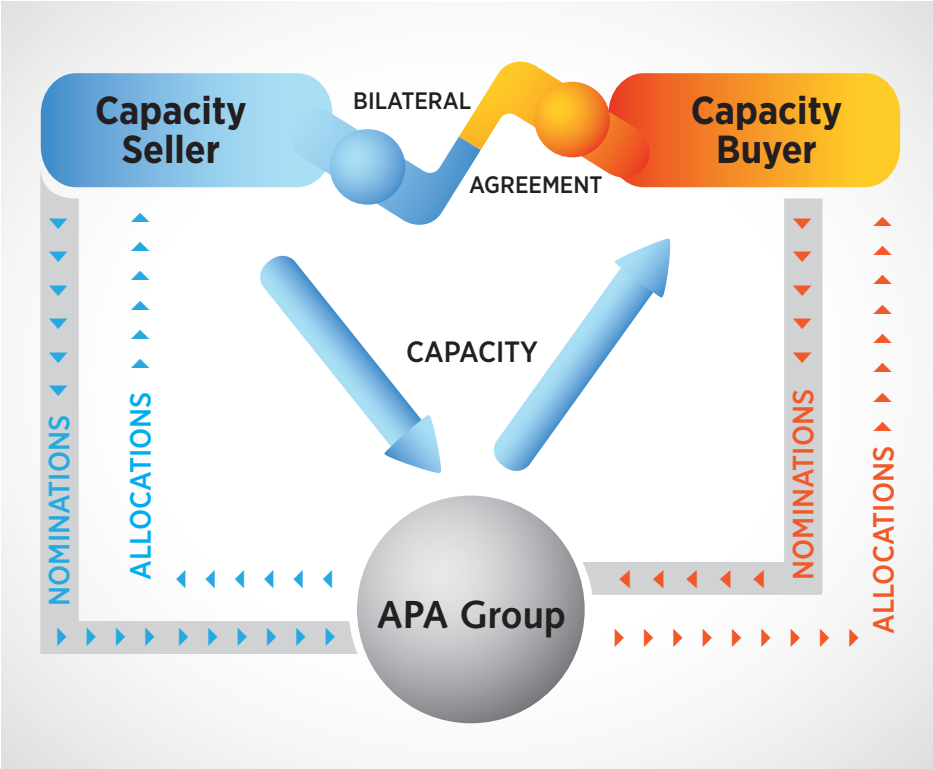
It also means that the seller of capacity is not responsible for administering the exchange of information about transportation requirements between the buyer and APA Group on a daily basis. This has the benefit of streamlining capacity trading for sellers.

As capacity is transferred from the seller to the buyer in the APA Grid customer portal and this is linked back to the shipper's agreements with APA Group, the operational obligations in relation to the traded capacity are transferred to the buyer. This results in a more appropriate allocation of risk.

APA Group's Capacity Trading web site improves market transparency over available capacity and assists buyers and sellers to connect and make a trade.

How does it work

APA Group's Capacity Trading service is unique in that it transfers the firm capacity from the seller to the buyer in the APA Grid customer portal. This transfer of capacity involves a triangular relationship (see figure below) between the seller, the buyer and APA Group where APA Group manages information flows for the commercial operation of the pipeline (nominations and allocations).



APA Group's Capacity Trading service ensures that commercially sensitive information concerning the buyer's use of capacity is exchanged only between the buyer and APA Group.

A shipper interested in buying or selling capacity can enter details of a bid or offer for capacity via the APA Grid customer portal. This information will then be published on APA Group's Capacity Trading web site. The buyer and seller then bilaterally negotiate the price and terms of the transaction. Once the trade is agreed, the seller registers details of the transaction using the APA Grid customer portal and the buyer confirms the details. The capacity of each of the parties is then adjusted within the APA Grid customer portal.

The Capacity Trading service is available to new and existing shippers who enter into an agreement with APA Group for the service.

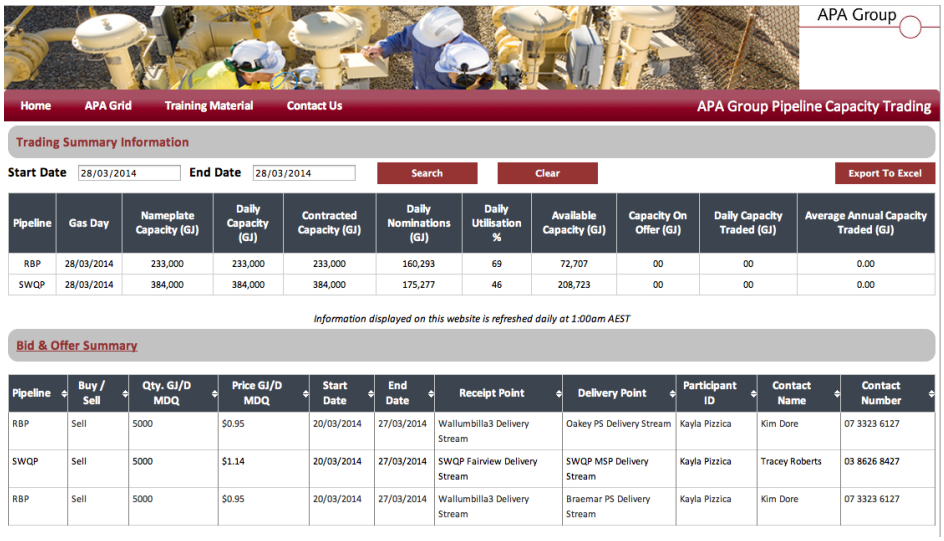
Future developments

APA Group will develop the service and web site to respond to needs of the market. Future development of the web site will include utilisation information for all of APA Group's east coast pipelines, allowing shippers to post bids and offers on all of APA Group's east coast pipelines and providing for implementation of trades for capacity across multiple assets as a single trade.

How do I access the service

Visit the web site at **http://capacitytrading.apa.com.au** to view information on available capacity, historical trading information and pipeline utilisation data. Training material on how to use the facility is also available.

To trade capacity using the Capacity Trading service, shippers need to have a gas transportation agreement in place with APA Group. For new shippers, this can be arranged by contacting APA Group.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Trading Summary Information

Start Date 28/03/2014 End Date 28/03/2014 Search Clear Export To Excel

Pipeline	Gas Day	Nameplate Capacity (GJ)	Daily Capacity (GJ)	Contracted Capacity (GJ)	Daily Nominations (GJ)	Daily Utilisation %	Available Capacity (GJ)	Capacity On Offer (GJ)	Daily Capacity Traded (GJ)	Average Annual Capacity Traded (GJ)
RBP	28/03/2014	233,000	233,000	233,000	160,293	69	72,707	00	00	0.00
SWQP	28/03/2014	384,000	384,000	384,000	175,277	46	208,723	00	00	0.00

Information displayed on this website is refreshed daily at 1:00am AEST

Bid & Offer Summary

Pipeline	Buy / Sell	Qty. GJ/D MDQ	Price GJ/D MDQ	Start Date	End Date	Receipt Point	Delivery Point	Participant ID	Contact Name	Contact Number
RBP	Sell	5000	$0.95	20/03/2014	27/03/2014	Wallumbilla3 Delivery Stream	Oakey PS Delivery Stream	Kayla Pizzica	Kim Dore	07 3323 6127
SWQP	Sell	5000	$1.14	20/03/2014	27/03/2014	SWQP Fairview Delivery Stream	SWQP MSP Delivery Stream	Kayla Pizzica	Tracey Roberts	03 8626 8427
RBP	Sell	5000	$0.95	20/03/2014	27/03/2014	Wallumbilla3 Delivery Stream	Braemar PS Delivery Stream	Kayla Pizzica	Kim Dore	07 3323 6127

FURTHER INFORMATION

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www.apa.com.au

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