

A few
words.

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



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East Coast Wholesale Gas Market and Pipeline Frameworks Review

Dear Mr Pierce,

AGL is pleased to provide a response to the Public Forum Paper released by the AEMC on 25 February 2015. Our submission follows the subject headings adopted in your discussion paper.

Facilitated markets

1. Given their performance to date, are the existing markets able to facilitate transactions required to manage current conditions?
2. Will the current market framework be able to facilitate transactions that may be required to meet future conditions?
3. Are there barriers to using the wholesale markets, for instance for new entrant retailers or for large users wishing to participate directly in the markets?
4. What opportunities are there for improved integration between the markets?

Existing facilitated markets are essentially balancing arrangements in downstream distribution networks, balancing arrangements for the express purpose of promoting and enabling full retail competition. To the extent that facilitated markets are about balancing, the arrangements put in place through market rules and design are about pricing overs and unders on any given day. Pricing in facilitated markets is therefore more about putting a cost to short-term constraints and to portfolio imbalances of participants rather than about the longer-term value of gas.

Given this limited objective, their performance can generally be said to meet expectations. However, as a participant in all the east coast gas markets, AGL suggests that the markets are characterised by complexity and resultant overhead costs which culminate in a service cost per GJ, particularly in the STTM, which overwhelm any value to be had from trading in the market. We suggest a review aimed at simplifying the rules and services provided by AEMO for the STTMs. This could mean that, as one possibility, we dispense with the pricing functionality in STTMs and rely on physical balancing and correct nominations by



participants to ensure system security, with penalties for deviations beyond an agreed threshold. However we acknowledge that we would still need some limited form of MOS service and MSV trading which would allow participants to clear their cumulative imbalances. This is how the markets operated in Sydney, Adelaide and Brisbane (albeit without an MSV mechanism) before the advent of the STTM. AGL is not proposing that this is the only way to achieve a fit-for-purpose and fit-for-size market. There may be other ways to pare back complexity and help drive simpler rules and lower the significant costs of participating in and administering the downstream market. Whatever the outcome of any review, the market mechanisms require simplification and improved definition such that pricing risks can be reduced for participants.

The STTM

1. Are the original objectives for the STTM still relevant and compatible with the new Council vision? How have stakeholders' experience with the STTM corresponded to initial expectations?
2. Are all STTM hubs (Sydney, Adelaide and Brisbane) delivering value to market participants?
3. What design features of the STTM could be improved to reduce costs and improve efficiency? (eg is there a role for intra-day trading?)
4. Given that most gas supply is bilaterally contracted, is it realistic to expect that prices in the STTM will signal underlying supply and demand conditions? If not, what is the role and value of STTM within the broader gas market framework?

The STTM is a market concept designed around demand hubs, generally associated with distribution networks in major centres. It is a day-ahead market, and the *ex ante* market applies for the entire gas day. Participants submit price-taker bids (forecast demand) and gas offers, with offer quantities linked to price steps. Each hub is scheduled and settled separately, but all hubs operate under the same rules, namely Part 20 of the National Gas Rules. In the STTM, shippers deliver gas to be sold in the market, and users buy gas for delivery to consumers. The same organisation might sell gas into the market and purchase gas from the market at the daily market price. Like the DWGM in Victoria, it is essentially an imbalance market that prices gas according to supply and demand on the day (or more precisely, the day before).

Our high-level comments about facilitated markets apply very much to the STTMs. Our experience in the three STTMs of Sydney, Adelaide, and Brisbane is that the overhead costs of participating in and administering the STTMs collectively are material, given the limited volumes that are passed through these mandatory markets. We have suggested in the section above that a move towards simpler rules and a physical balancing regime may be appropriate for the size of these markets.

The physical configurations of the individual hubs are also not consistent with the fundamental assumption made when the markets were designed that there are no or minimal network constraints within the distribution network. The upshot of that critical assumption is that gas can be received into the network at any of the receipt points and from either of the pipelines connected to the hub. This allows for a separation of injections into the hub and withdrawals from the hub, being the basis for *ex ante* trading of imbalances.

The existence of phenomena such as counteracting MOS suggests that this assumption does not hold under all circumstances and flow situations. Counteracting MOS manifests itself in Adelaide and, less frequently, in Sydney as well. In Brisbane, we have the situation where there is only one pipeline that runs through sub-networks belonging either to Allgas or to Australian Gas Networks and where there is little interconnectedness between the sub-networks for each distributor. The hub is not characterised by one contiguous network but by a series of isolated sub-networks, each of which is supplied by a single delivery



point. This feature, along with the inclusion of 3 transmission customers (designated for rules compatibility purposes as “deemed distributors” in order to be aligned with the STTM template), makes for an STTM experience which differs from the initial template.

Another observation about STTMs is that the *ex ante* price and scheduled offers are locked down some 18 hours before the start of the gas day. As a result, it has meant that deviations are often the result of conditions being different once the gas day gets underway, such as unplanned outages experienced by gas producers or withdrawing customers, weather variations, unexpected pipeline issues, etc. The inability to revise bids and offers is often cited as a shortcoming, with suggestions that an intra-day renomination functionality, as we have in the DWGM, is warranted. AGL would very much caution against that, given our view that the markets are already overly complex and expensive to administer for the volumes of gas that flow through them. We are of the view that a MOS balancing service, supplemented with participants engaging in MSV trades to manage imbalances, could still be a regime that is appropriate and worth re-considering for these markets – but only if the means by which such charges are established can be so well-defined that the pricing risks can be mitigated by market participants.

Wallumbilla Gas Supply Hub

1. Is Wallumbilla adding value to the way participants manage their gas portfolios and what directions should the development of the market take?
2. How does trading at Wallumbilla impact on trading in other wholesale markets?
3. Would the establishment of a GSH at Moomba facilitate additional trade? Would a Moomba GSH impact on liquidity at Wallumbilla?
4. How useful is the information provided by the Wallumbilla hub to market participants and what additional information could be provided to improve accuracy and transparency at the GSH?

The Wallumbilla gas supply hub got underway on 20 March 2014. It is a voluntary market and one that matches trades between buyers and sellers — traded volumes in the first year have been 2,984TJ, with an average daily volume of 8.2TJ. AEMO provides the trading platform, the market reports, the settlement function, and a governance framework under which members operate. AGL’s experience with the supply hub thus far is that it has facilitated short-term trades in gas by eliminating the overheads of contractual and term sheet negotiations associated with spot transactions. Our experience also vindicates the role played by AEMO in removing settlement or counterparty risk often associated with bilateral trades.

AGL expressed cautious optimism in its response to the Eastern Australia Gas Market Study dated 6 February 2014 that the Wallumbilla supply hub may be an important first step in moving away from the current gas market landscape of facilitated downstream markets in distribution hubs only. By providing a low-cost mechanism for voluntary wholesale deals, the supply hub allows for greater flexibility in an industry that is characterised by physical delivery and supported by offers based on existing Gas Supply Agreements (GSAs) and Gas Transportation Agreements (GTAs). AGL considers that it is only the physical limitations of moving gas from point to point within the hub which limits any expansion in trade.

In our response, we also expressed strongly our view that markets need to be encouraged and allowed to develop organically rather than be foisted on the industry. The hub has been in operation for less than a year and we are now witnessing the emergence of a risk-management tool in the form of a financial product offered by the ASX around an end-of-day closing price. This will be published by AEMO towards the end of Q1, 2015. The ASX’s

GSH Futures contract will have monthly and quarterly products, with the first listed contract (July-15) being settled at the end of July 2015.



Other developments being contemplated and discussed are driven, or at least have been influenced, by the emergence of this upstream trading facility. Examples that come to mind are a capacity buy/sell bulletin board-type facility on the Wallumbilla trading system, another supply hub with a possible Moomba location, an investigation into the feasibility of rationalising the three trading locations at Wallumbilla, and various in-pipe capacity trading arrangements from pipeliners. AGL would expect to see more initiatives and innovation associated with a low-cost, voluntary and bilateral trading arrangement.

The DWGM

1. Are the original objectives and rationale for the DWGM relevant and compatible with the Council's vision?
2. Is investment in the DTS occurring in an efficient and timely manner? Or are there limitations with the current investment and/or regulatory framework?
3. Do the DWGM arrangements inhibit the transportation of gas between the DTS and interconnected pipelines?
4. How could the market design be amended to provide additional tools for participants to manage price and volume risk in the DWGM?

The DWGM is the gas market associated with the Declared Transmission System (DTS) in Victoria and its design and market rules are described in Part 19 of the National Gas Rules. DWGM works in terms of participants submitting demand forecasts for their expected load by hour for the coming gas day as well as bids (gas offers) that offer their gas to the market at various prices, which are then stacked in increasing price order and cleared against the total forecast market demand. A participant is responsible for its own demand forecast, just as a participant is responsible for submitting its own Price Taker Bid in the STTM.

In the Victorian context, market carriage arrangements for gas haulage obviate the need for haulage or transmission contracts to participate in the DWGM — payment for haulage depends on usage of the transmission system. However, the market is characterised by Authorised MDQ and AMDQ Credit Certificates which act as a hedge against certain events and confer priority to holders in being scheduled when there are constraints.

Each day an imbalance will exist between the gas supplied by a participant and the gas consumed or withdrawn by that participant's customers. The DWGM determines a market price used by all participants to trade their imbalances. This imbalance quantity will be calculated each time AEMO runs a schedule, and market participants will receive a payment or charge for their imbalance at the applicable market price. The Victorian gas market provides the opportunity to revise demand forecast and bids at 4-hourly intervals, starting at 6am. This provides participants with an opportunity to adjust their forecasts and gas offers in light of circumstances eventuating on the day.

The DWGM is unlike the STTMs. The STTM is a market overlay on haulage provided to shippers under contract by pipeliners — there is no transmission system operator as the pipes are each managed individually. The STTMs are far removed from the Victorian situation where the transmission system is less point-to-point in nature and more like that of a distribution network. There is very limited linepack in the system, high penetration of gas, and a great degree of weather sensitivity. In order to manage this unique set of circumstances, AEMO is not only the market operator but is also the independent transmission system operator as well as the body entrusted with maintaining system security.



The DWGM commenced life in 1999 as a daily *ex post* market. When it was thought that *ex post* price signals would not serve the need of gas-powered generators in a world that appeared to be heading towards gas as a significant generation fuel, the market was modified extensively to provide *ex ante* prices and five trading intervals in the day to allow participants to renominate their bids and offers. With the anticipated shift towards gas as a major generation fuel in Victoria not eventuating, we now have a somewhat complex market mechanism that is over-engineered for what it does. Having said that, the absence of appreciable linepack and the peakiness of gas demand in Victoria sit well with the ability to revise bids and offers during the course of a gas day.

Our considered view is that the DWGM is generally best left alone as the costs of dismantling the existing arrangements and installing new rules and market systems are unlikely to result in net benefits. Nevertheless, as there is significant complexity and risk in ancillary payments and uplift charges, AGL would welcome a review of these charges with the aim of reducing market participants' transaction costs and pricing risks.

In addition, given the increasing interconnectedness of pipelines, it would be appropriate to further review the interface between Victoria's market carriage regime with contract carriage regimes in SA and NSW, noting that steps have been taken to clarify procedures for the exports of gas through Culcairn.

Transmission pipelines

1. Are the original objectives of the gas access regime still relevant and compatible with the Council's vision?
2. Is the current low number of covered transmission pipelines a cause for concern or a measure of competition?
3. Are there impediments to short term trading of pipeline capacity trading? (ie why is secondary trading not occurring?) If so, how should these best be addressed?
4. Does the increasingly interconnected nature of gas pipelines and markets on the east coast form a driver for greater harmonisation of regulatory arrangements (eg a single carriage model or greater integration of market and pipeline frameworks)?
5. How useful is the information provided on the Bulletin Board to market participants and what additional information could be provided to facilitate secondary trading?

AGL has put forth its views to the questions posed below in its 15 July 2013 response to the RIS around secondary pipeline capacity trading and to the 18 July 2014 submission to the COAG Energy Council's consultation on enhanced pipeline capacity information.

AGL has argued that there are fundamental, structural issues around pipeline contracts that need to be addressed or resolved in order to enable liquid trading in haulage rights. There is a level of inherent complexity associated with capacity that is not present in commodity trading, and we have previously identified a short list of what we term "trade inhibitors" associated with current pipeline contracts and practices:

- The enumeration of delivery points in GTAs and the delays in including an additional delivery point get in the way of shippers being able to offer their capacity to a third party. In AGL's view, delivery points can be grouped into zones to provide shippers flexibility, without diminishing the pipeliner's ability to manage the physical characteristics of its pipeline.
- There is often a related requirement to negotiate an allocation agreement with the incumbent shipper at that delivery point. If the pipeliner were to provide the allocation at that delivery point as part of a standard service offering for delivery points, as it does in the STTM, this obstacle can be sidestepped.



- Nomination cut-off times in existing GTAs are generally not based on operational requirements. Instead they act to ensure that pipeliners rather than the contract holders get to sell available capacity to other shippers.
- We often see a volume-driven fee structure around services related to their forward haulage service which are more in the nature of a transaction that would warrant an administrative charge. The pricing tends to nullify any benefit from trading capacity.

These are structural impediments that impede flexibility and hence the ease and willingness with which secondary trading can be conducted. In AGL's view, the absence of certain key contractual terms and conditions across the pipeline industry that offer flexibility and facilitate shippers to trade capacity at no additional cost, unless justifiable, greatly inhibits secondary capacity trading. We believe that standardisation of these Ts & Cs and keeping transaction costs down will assist in engendering liquidity in this market.

One of the ways in which such standardisation could occur would be to remove the anomaly of allowing pipelines to be a combination of regulated and unregulated. Such a concession does both alternatives a disservice and constrains the shipper and pipeliner in their ability to negotiate a deal which is the best outcome for both parties.

Broadly speaking, we would be supportive of the consideration of enhanced pipeline capacity trading arrangements, so long as the revised arrangements continue to incentivise efficient investment in the gas industry, and ensure continuity of gas supply for end-use customers at volumes and on terms equivalent to current contractual arrangements. We reiterate some of the points below that we raised in our response to the RIS consultation relating to pipeline capacity trading that was conducted by the SCER in July 2013:

- Gas has always been underwritten by long-term contracts for both commodity and haulage. The up-front capital costs of development require producers and pipeliners to have revenue certainty. Any move away from long-term foundation contracts to underwrite investment would need to provide a robust model of funding future capacity.
- Shippers and retailers need to be able to offer firm gas to end-users, which is backed by firm haulage and gas sales agreements. Any move away from the current system of bilateral contracting would still need to ensure long term gas supply to end-use customers who are reliant upon this gas supply for their own long term financial, contractual, and operational commitments.

The issue of "contractual congestion" is often raised as a shortcoming, with the implicit suggestion that removing it will enable more gas to flow and will be of benefit to eastern Australian gas markets. Proponents of this view are seemingly oblivious, or electing to be, to the differences between Australia's east coast gas market and overseas markets. In the European context, the congestion management procedures required under the EC's 3rd Directive (one of which is the regime of oversell and buyback) is possible because transmission pipelines are heavily regulated, there are multiple sources of gas to contend with, there is significant interconnection between pipelines, a large population base in excess of 500 million, and fuel security is a big strategic concern for governments. The Australian context is more about long (and linear) pipelines from production sources to downstream markets, reliance on investment by those prepared to fund developments, low population densities, and two dominant conventional basins. It is also very much about shippers and retailers offering firm gas and haulage to meet the expectations of end-users who have committed to investment in natural-gas burning technology for their homes and factories.

Other comments or issues

1. The AEMC welcomes stakeholder views on any issues or questions raised in this paper, particularly regarding current market outcomes.
2. Are there any issues or concerns relating to the wholesale gas market and pipeline frameworks not covered by this paper?

AGL has consistently stated that what is happening on the east coast of Australia is a massive shift in the supply/demand configuration of the industry as an LNG export trade based predominantly on CSG establishes itself at Gladstone in Queensland. Any resulting upward pressure on gas prices is not, in our view, evidence of current markets needing overhaul but merely a reflection of this disruptive development. A review of markets and gas supply chain efficiency is unlikely to identify major inadequacies. The supply side problems that are currently being faced in the market are not due to an inadequacy of gas supply infrastructure. Generally speaking, there is sufficient and appropriate infrastructure available to support current levels of upstream gas supply, and the potential for augmentation and other arrangements to be negotiated where this is found to be necessary. If there is anything meaningful to be attempted against this backdrop, it would be the encouragement of exploration and supply and the removal of any impediments to increasing supply.

AGL does not endorse a review of the merits of market carriage versus contract carriage options. Commercial arrangements and downstream market designs reflect the circumstances and history at the time commercial gas development commenced in Australia. AGL believes that commencing this debate will prove to be unnecessary and ultimately a distraction, particularly given that gas markets operate successfully with a combination of elements of both market and contract carriage. However it is appropriate for the Commission to investigate points of interface between the two systems, to ensure gas can be wheeled from point to point without hindrance.

If you have any queries with respect to this submission, please contact George Foley on (03) 8633 6239 or by email at gfoley@agl.com.au.

Yours sincerely,



Duncan MacKinnon
Manager, Wholesale Markets Regulation