



31 March 2015

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

Dear Mr John Pierce,

**RE: East Coast Wholesale Gas Market and Pipeline Frameworks Review**

Thank you for the opportunity to provide a submission on the issues and questions raised by the Public Forum Paper.

**Executive Summary**

Qenos is Australia's sole producer and leading supplier of polyethylene. Qenos spends tens of millions of dollars on gas each year, which is an important fuel source used in its manufacturing facilities. Qenos also uses ethane, a co-product of natural gas, as a feedstock in the manufacture of polyethylene. Qenos as a member of the Plastics and Chemicals Industries Association (PACIA), Energy Users Association of Australia (EUAA) and Australian Industry Group (AIG) supports the key points and recommendations made in their separate submission to the AEMC including the following gas market vision:

*"A domestic gas market that is deep in capacity, liquid in supply, competitive, transparent, informed and with good price discovery."*

Qenos welcomes the AEMC's review into the design, function and roles of facilitated markets and gas transportation arrangements in the Eastern Australian gas market, which, with the exception of competitive supply, covers all areas of the gas market vision.

Qenos supports the following issues raised in the AEMC Public Forum Paper:

- a) greater market transparency, including available volume, pipeline capacity and pricing
- b) implementation of the Moomba GSH
- c) development of other risk management tool including financial derivatives

With this in mind, Qenos recommends the following:

- a) include prices from the Facilitated Markets in the Gas Bulletin Board ;
- b) a centralized location for market participants to post relevant information;
- c) incorporate MSV trading into the STTM market in preference to intraday trading;  
and
- d) streamline and simplify the STTM registration process to encourage more participants.

## **Introduction**

Qenos Pty Ltd (“Qenos”) is Australia’s sole manufacturer and leading supplier of polyethylene. Polyethylene is the raw material used in the manufacture of plastic products including water tanks, pipe, film and bottles for household chemicals. The company employs approximately 700 people across its two large manufacturing sites at Botany (New South Wales) and Altona (Victoria).

Qenos manufactures ethylene and three types of polyethylene (low, linear-low and high density). The ethylene produced on the Botany site is from ethane sourced by a 1400 km pipeline from South Australia’s Moomba gas fields (constructed in 1995 at a cost of \$240 million). The Altona site, sources its ethane from Bass Strait via Longford and Long Island Point processing plant with a pipeline across Port Phillip Bay.

Qenos is involved in substantial value-adding processes to Australia’s indigenous raw material reserves through its manufacturing operations at Botany and Altona. The Company’s annual turnover of between \$700 and \$900 Million makes it one of the largest petrochemical companies in the region and the largest in Australia (with a capital replacement cost of \$2.5 billion).

Qenos is a trade exposed business that operates in highly competitive markets where prices are determined by the price of imported products. Qenos has no control or influence over these prices in order to achieve a pre-determined return.

Qenos is a large gas user consuming 8 PJ’s of natural gas and when you include ethane (a derivative of natural gas production) which is used as a feedstock in the manufacture of ethylene, its facilities can consume over 40 PJ’s p.a. This makes gas and the gas market a vital part of our business.

Over the last 3 years, Qenos has invested \$195M to expand and upgrade its Altona manufacturing facilities, which has increased its production capacity by 20% of domestic High Density Polyethylene. In 2013, Qenos & AGL Energy Ltd commissioned its state of the art cogeneration facility at a cost of \$45M. The cogeneration unit is capable of meeting all of Qenos’ electricity demand and is capable of producing a third of its steam requirements while reducing greenhouse gas emissions. These investments were made possible by having long-term gas supply contracts. Qenos is considering further investment worth more than \$200M and is currently in discussions with 3<sup>rd</sup> parties on this regard.

## **Natural Gas Market Vision**

Qenos through its affiliation with various industry groups including Plastics and Chemicals Industries Association (PACIA), Energy Users Association of Australia (EUAA) and Australian Industry Group (AIG) supports the key points and recommendations made in their joint submission to this AEMC review as well as the Energy Green paper.

This submission recommended a gas market that is deep in capacity, liquid in supply, competitive, transparent, informed and with good price discovery. The gas market reforms being pursued includes increasing supply (noted that this is outside to scope of this review), increasing the diversity of gas supply to strengthen the market and support the market through increased transparency and information.

The overall energy policy needs to reflect that not only is gas an important fuel but also a vital chemical feedstock used in manufacturing and transformed into higher value products, which provide a significant contribution in the broader Australian economy.

## **Facilitated markets – Need for greater transparency similar to electricity markets**

Qenos has experience in both gas and electricity markets. It spends tens of millions of dollars on energy (gas, electricity & coal) each year. As an emission intensive, trade exposed business it has a strong focus on optimising its energy portfolio.

In the electricity market, pricing is relatively transparent with forward prices openly displayed with offers, bids and the volumes traded over different periods. The availability of a transparent price signal allows Qenos to easily understand what the current market price is and optimise the timing of its electricity purchases. In 2010, for its Altona facility, Qenos took another step and moved away from a traditional retail contract and took-on exposure to the electricity spot-price. It was then able to purchase separate parcels of electricity over time to provide a hedge against this exposure. This was made possible due to new retailers entering the electricity market and offering products that were specifically tailored for customers that the existing retailers did not offer.

Historically, Qenos has contracted its gas supply from an energy retailer. When these agreements expire, typically every 3 years, Qenos engages the market through a RFP process. This is a resource intensive period of time (for both sides), over 2 to 3 months. Qenos meets to discuss its requirements, evaluates the different proposals, selects and finalises the Gas Supply Agreement (GSA). To put things into perspective, last year an extension to a 2 year electricity supply agreement took less than a month.

From our experience, this process for price discovery is rather 'hit and miss'. With little information on when to engage the market, there was an element of luck on the 'best' time to engage the market with the timing typically related to when the retailers were looking to contract and how successful they have been previously in gaining and retaining customers.

This is why Qenos supports greater market transparency with regards to available volume, pipeline capacity and pricing. This will improve market efficiency by reducing

the time taken for price discovery, enable better risk management by facilitating participants to more easily trade off-setting positions and better utilise existing assets by making available unused pipeline capacity to physically transport the gas where it's most needed.

Qenos recommends including pricing data from the Facilitated markets (STTM, DWGM and Wallumbilla hub) on the Gas Bulletin Board. This would bring together important information that is currently available at separate locations. Qenos would also like to see a central location where gas market participants can 'post' their requirements, including demand and supply for parcels of gas, spare pipeline capacity or relevant market information. We would see this as a means of providing similar information to all market participants and closing the market information asymmetry gap. It would also be a central location where different stakeholders including regulators and the community could effectively communicate with the market.

### **The STTM – Qenos experience as a Market Participant**

From 1 January 2015, Qenos became a market participant in the Sydney STTM. Qenos watched the development of the Sydney STTM from its inception in 2010. It saw the STTM as an alternative means of purchasing gas, similar to its Altona electricity experience. Prior to the creation of the STTM, there was very little transparency on gas pricing. The only price signal was from the Victorian DWGM. The STTM has enabled direct access to wholesale gas supply, which was previously only accessible via bi-lateral agreements with a retailer or gas producer. The development of the STTM has facilitated communication, negotiation and increased commercial gas transacting between traditional gas suppliers and customers. Parties that previously would never have engaged with each other on gas transactions are now transacting with each other and as a result producing more efficient outcomes.

The success of the STTM can be marked by the increase in market participation as highlighted in AEMO's presentation at the AEMC public information on 25 February 2015, which reported that 16 STTM registration applications have been received over the past 4 to 5 months. In the last 3 months, we have seen two new offerings being developed where gas supply is linked to the STTM gas market. Qenos welcomes these new offerings that increase competition in a market and provides alternatives.

While the development of the STTM has allowed much greater price (and gas supply availability) discovery, it is generally acknowledged that the daily STTM gas price is not an accurate reflection of contracted gas prices. This is because the STTM is a balancing market for participants which are short or long on a day or have issues such as the management of take or pay risk. The STTM gives these parties a channel to market to sell their gas. As a result pricing tends to reflect the marginal cost of gas rather than the long term price of gas and can provide a discount for end users buying gas from the STTM rather than long term producer based contracts. The risk associated with this approach is an exposure to gas prices higher than prevailing contract prices, up to the market price cap of \$400/GJ. This exposure means that participants, including Qenos, that are unable to materially reduce gas demand on a day, still require longer-term gas supply contracts to hedge against this risk. Due to the concentration upstream, with three major gas retailers and five gas producers providing ~85% of the gas, it could be argued that they have significant power over long term gas pricing.

Besides bi-lateral gas supply agreements to provide a hedge against gas pricing, Qenos also uses Market Schedule Variations (MSV's) to manage its market deviations with other market participants. This has been further assisted by the recent change in the calculation of Deviation/Surplus Shortfall payments. We believe these changes have improved the operation of the STTM by allocating the cost of the deviation to the market participants that incurred the deviation on that day. This allows market participants to better manage the cost of their deviations more efficiently.

### **Improvements to the existing market**

Qenos supports the development of the proposed Moomba GSH and would be more likely to pursue gas purchases through Moomba as it is more easily connected to its facilities via the Moomba to Sydney Pipeline. Qenos believes that this would facilitate longer term gas supply offers and work to complement the short-term offers from the STTM. This route would also enable ethane to be extracted from the natural gas, providing an additional resource for value added manufacturing.

Qenos supports the AEMC to encourage the development of other risk management to supplement bi-lateral gas supply agreements and MSV's. Qenos would be interested in financial derivatives that would enable short to medium term hedges against the STTM gas price as an alternative to physical gas supply agreements. This would be similar to the type of products available in the electricity market which includes forward contracts, price caps and floors.

A key improvement in the design of the STTM would be to allow for the full settlement of MSV's through the STTM Settlement System. This would negate the need for individual parties to put in place separate documentation with every other market participant for MSV transactions. Further it would negate the need for credit checks and credit support arrangements between individual market participants for MSV's. Settling MSV's via the market would produce a much more efficient MSV process as well as reducing the barriers between market participants freely transaction in MSV's with each other.

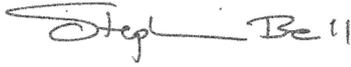
Qenos believes that intraday trading would be of little benefit to customers and would increase the level of resources required to participate in the STTM. Most gas contracts involve daily nominations in advance and do not involve intraday nominations. Further the structure of the STTM currently allows for gas users to effectively adjust their nominations and user internal MSV's to balance out their position. This is a very effective tool and negates the need for intraday trading. Qenos would prefer the implementation of trading MSV's through the STTM rather than the inclusion of intraday trading.

Qenos believes that to encourage a broader and deeper market, measures should be made to increase the level of participation for consumers, emerging retailers and small gas producers. Improvements could be made to simplify and streamline the process for becoming a STTM market participant. Qenos found this experience extremely time consuming and bureaucratic which could potentially be a deterrent for other participants.

Thank you for considering Qenos' comments. We welcome the AEMC's review into the East Coast Wholesale Gas Market and look forward to hearing its initial findings in April 2015.

If you have any questions concerning this submission, please do not hesitate to contact Andrew Cheah on (02) 8336 1245.

Yours Sincerely

A handwritten signature in black ink that reads "Stephen Bell". The signature is written in a cursive style with a long horizontal line extending from the end of the name.

**Stephen Bell**  
**General Manager Commercial**