

1 April 2014

Australian Energy Market Commission

Submission via web lodgement

Dear Madam / Sir

**Subject: East Coast Wholesale Gas Market and Pipeline Frameworks Review: Public Forum Paper**

Arrow Energy Pty Ltd (**Arrow**) welcomes the opportunity to provide comments to the Australian Energy Market Commission (**AEMC**) to inform the review of the east coast wholesale gas market and pipeline framework.

Attached with this letter is Arrow's submission, covering the issues and questions raised in the AEMC's public forum paper. Arrow asserts that ongoing development and review of policy measures is essential to ensure market efficiency and is committed to supporting regulatory and market reform. The establishment of a policy framework to guide and facilitate long term development of Australia's energy industry is crucial. Primary focus should be placed on removing all impediments and putting in place the regulatory framework required to facilitate timely delivery of projects.

If you require further clarification on our submission, please contact Walter Schutte, Acting General Manager Energy Markets on phone (07) 3012 4000. Arrow is committed to being actively involved in the ongoing development of the energy markets landscape.

Yours faithfully



Walter Schutte  
**Acting General Manager Energy Markets**  
On behalf of Arrow Energy Pty Ltd

## **Background of Arrow Energy**

Arrow Energy Pty Ltd (**Arrow**) is owned by Royal Dutch Shell and PetroChina, who acquired the ASX-listed Arrow in August 2010. The company is focused on the exploration, extraction and use of coal seam gas (CSG), a naturally occurring and comparatively clean burning gas that is commonly used to fuel electricity generation and as an industrial input.

Arrow's activities range from exploration to production, transportation and electricity generation. It has been operating a strong domestic gas supply business since 2004, and is currently working to explore and develop the CSG resources in Queensland.

Arrow is working to meet the growing international demand for cleaner burning fuels through a gas supply for LNG project. Additionally Arrow has a portfolio of exploration tenements that cover approximately 41,500 km<sup>2</sup>. Currently, the company produces gas from fields in the Surat Basin in south-east Queensland and the Bowen Basin in central Queensland. With about 1,200 gas wells, Arrow is able to supply gas to the Townsville (235 MW), Daandine (33 MW) and Braemar 2 (450 MW) power stations, as well as local and industrial users in Townsville, Moranbah and Brisbane.

## **East Coast Wholesale Market and Pipeline Frameworks Review**

In response to the Australian Energy Market Commission's East Coast Gas Market and Pipeline Frameworks Review and Review of the Victorian Declared Wholesale Gas Market, Arrow wish to outline a series of high level principles to guide the development process over the near term. These principles target improved market design and operation including the provision of transparent market information and access to transportation capacity. **An effective market will ultimately lead to greater choice for customers for competitively priced gas.**

Principle 1 – The need for gas market development and defining the role of policy

**Arrow supports further development of the Eastern Australian gas market in light of current challenges and uncertainties to the extent that proposed changes support productivity and economic efficiency.**

Australian gas markets are currently experiencing significant change and the need of participants (users, transporters, wholesalers and producers) are no longer being met – therefore change is needed. **This will increase security and availability of supply, deliver greater price transparency and provide greater customer choice.**

As conventional gas reserves deplete, unconventional gas reserves will need to be developed. Attracting international investment is critical in this regard given that development of unconventional gas reserves is complex, cost intensive and only economic on a large scale. As such, policy underpinning market development must consider how large scale development can be encouraged to deliver the needs of domestic demands and international marketing.

Gas market reform is in its infancy and areas of policy improvement clearly present themselves. Current market structures and policy is largely based on historic configuration and point-to-point supply arrangements. The dynamics of a transitioning gas market to a more interconnected transmission network with differing gas sources (including CSG and potentially shale gas) must be considered in the design of the future market.

Customer needs in terms of risk management, access to supply, price competitiveness and choice should inform market structure. Ultimately the success of the market will be dependent on maintaining the value proposition for investors and delivering a suite of solutions to customers that meets their needs.

Elements of market design that should be considered include:

- Physical market security and stability
- Supply security
- Supply competition
- Provision of appropriate information
- Access to transportation capacity
- Supply and demand needs (risk and price)
- Price transparency

Consistent with the National Gas Objective, reform should *promote efficient investment in, and efficient operation and use of, natural gas services for the **long-term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.***

Principle 2 – A forward gas market development strategy with clear priorities

**Arrow supports the preparation of an integrated forward development strategy that acknowledges the roles of both industry and government in promoting market development, and identifies reform priorities and market impacts. The plan should facilitate timely development of the market while appreciating the need for industry to manage the transformation.**

The reforms required to deliver an integrated and efficient market are likely to be significant and wide ranging. Only once the overall requirements and elements of change are clear can the value of the transformation be established. Such reform is best achieved when the objectives are well understood and distinct milestones are mapped out.

An ad hoc or fragmented approach to the development of the market is likely to fail, and assuming that the required change can be brought about by quick minor modification of the existing framework is dangerous. The change should be considered, specific in its design and allow sufficient time for participants and customers to implement.

It is critical that all parties involved in the gas supply value chain be consulted to fully understand:

1. the objective of each component of change;
2. the implications for alternate solutions; and
3. the eventual effectiveness of the change.

Prioritisation of elements of the reform agenda can drive the highest value aspects within the comprehensive plan recognising that full delivery may require staged evolution or parallel development of facilitating functionality. Delivering a market with transparent pricing and the ability to readily secure supply of gas is in the interest of all customers.

Principle 3 – Improved market information to support trade

**Information informs participants, potential new entrants, energy users, governments and other stakeholders about the performance and suitability of gas market arrangements to enable efficient decision making. In the absence of prohibitive costs and breaches of confidentiality, Arrow supports improvements in information availability, transparency and discovery for the purpose of facilitating trade and liquidity, and providing clear price signals.**

Proper and efficient market operation is predicated on the availability of relevant and validated market data. The challenge is identifying the most appropriate dataset that meets users' needs and can be presented simply as opposed to unconstrained provision of vast amounts of data.

Un-contextualised data could easily be misinterpreted or too complex to assess. Market information must be transparent and consistent yet appropriate with clear meaning / application.

Given information asymmetries are genuine impediments to fully functioning markets, Arrow has some support for the view that the market would be better served by a more centralised and complete reporting framework encompassing both supply and demand sources. A robust data model will assist participants in analysing the market.

Aspects of data provision that should be considered in identifying the most appropriate data set include:

- Accuracy of data (noting physical constraints)
- Frequency of data
- Aggregation of data
- Timing of data release (daily, hourly or real time)
- Cost and timeframe required to establish measurement infrastructure to provide data

Arrow recommends that a full scoping study be undertaken to:

- understand information requirements, and
- map the most efficient means of providing those requirements.

This should include a cost benefit analysis to ensure information requirements are tailored to optimise market operation. Easily accessible, clear and reliable market information will assist customers in making good risk management decisions.

Principle 4 – Improved access to efficiently priced short to medium term capacity

**Improving the efficient access and use of pipeline and gas infrastructure is a fundamental component of the gas market. The full benefits of market developments and enhanced trading arrangements cannot progress without a more effective transportation regime, including capacity trading and access, which encourage efficient market outcomes.**

The ability and cost of linking energy resources and demand locations affects market efficiencies, return on investment and ultimately underlying costs for new or existing market participants. Arrow acknowledges the potential benefits that can be achieved by shared use. The benefits of a single pipeline regulatory regime with clear mechanisms for accessing capacity will enhance investment certainty and facilitate deeper market development. **This will ultimately improve competition and provide greater choice to customers.**

Mechanisms to facilitate efficient capacity trading whilst acknowledging existing and new property rights do not presently exist. Attaining access to capacity presents a number of challenges that must be addressed:

1. Rights of existing asset owners
2. Impacts on risk position and opportunity (asset and capacity owner)
3. Mechanism for providing access
4. Commercial terms
5. Benefit to market

The preferred mechanism for realising shared use should provide clear signals to commercially incentivise owners to provide access.

In understanding the optimal mechanism, consideration should be given to all market-based options that facilitate greater access to capacity, while keeping whole participants offsetting underwriting/sunk costs.

Principle 5 – Effective facilitated gas markets

**Trading hubs provide an important market reference point. Building upon and resolving identified issues with existing trading hubs is a necessary pre-condition to development of an integrated Eastern Australian gas market.**

Australian gas markets are currently disparate, even though physically connected, creating inefficiencies or hurdles to transacting. Achieving supply across the complex arrangements is often not practical or adds significant cost and risk.

Varying market designs are making trading more complex and giving rise to inefficiencies. Each market is characterised by specific and enduring limitations. While the Wallumbilla hub continues to support growing liquidity, which has been welcomed, the absence of progress in relation to the Short-Term Trading Market and Declared Wholesale Gas Market requires attention.

Arrow considers that hubs should be designed to facilitate participation and deliver liquidity. Presently, hub characteristics and design leads to a situation where only gas retailers are likely to participate, with gas producers, industrial and commercial users and pipelines typically outside of these arrangements, and intermediaries choosing not to participate. Impediments to participation include:

- Market inconsistencies, complexities and costs
- Lack of physical pipeline interconnection and access to transportation capacity in some areas
- The continued prevalence of longer term contracts (usually bespoke)
- Lack of standardised contract terms

Harmonising elements of existing markets (such as the start of gas day and market price caps), to reduce the risk of arbitrage across the markets and the costs faced by participants operating in both markets would reduce complexity and facilitate increased participation.

The ultimate objective should be to develop a singular market model allowing for seamless transacting across the East Coast. The costs of change and likely adverse impacts on existing participants should be considered in the context of flow on benefits to customers. **Customer and market participants are already seeing initial benefits flowing from the development of a trading hub.**

**The following are responses to specific questions raised in the AEMC paper**

**Facilitated Markets**

1. Given their performance to date, are the existing markets able to facilitate transactions required to manage current conditions?

Current market design is complex and fragmented. It does not facilitate ease of transacting and presents significant barrier to entry. Managing risk within the current design is costly and time consuming. The current market may likely be able to address modern needs, but it would do so ineffectively and at greater cost.

2. Will the current market framework be able to facilitate transactions that may be required to meet future conditions?

As described above, the current market framework may respond to some extent to the demands of future conditions, but will likely fail to provide the required flexibility or be inefficient in doing so.

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?

There are a number of areas that either result in making market entry complex or create barriers to entry:

- Complex and fragmented market structure
- Cost of entry (building capability)
- Lack of consistent contracting terms
- Basis risk resulting from differing market dynamics
- Bespoke contract terms – mainly bilaterally negotiated

4. What opportunities are there for improved integration between the markets?

Arrow is of the opinion that a single market structure dealing with all transaction elements from production to use is critical. Specific focus should be given to ensuring that the market design is as simplistic as possible and facilitates new entrants. This will improve competition and liquidity.

**The STTM**

Arrow does not currently participate in the STTM, nor does it have any intention to enter this market in the near future. Arrow has been made anecdotally aware of the significant cost and administration burden attached to the STTM. Arrow makes no comment at this time.



## **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?

Yes, as a minimum the WGSB has delivered improved liquidity. From Arrow's perspective, the more important benefit is the development of a transparent pricing point. Price movements are already being reported by external data providers and the level of interest in Queensland gas pricing has expanded significantly.

2. How does trading at Wallumbilla impact on trading in other wholesale markets?

Trading at RBP can impact trading on the STTM and vice versa. Where before clearing prices could be impacted by the relatively small STTM volumes, the WGSB now offers a more liquid and transparent alternative as a reference.

3. Would the establishment of a GSB at Moomba facilitate additional trade? Would a Moomba GSB impact on liquidity at Wallumbilla?

Arrow reserves its position until sufficiently detailed analysis has been undertaken. The following high level statements may provide some guidance on the key concerns / considerations:

### **Positives**

Introduction of Moomba GSB would add price transparency on hub transfer services and would identify constraints on any interconnected pipelines.

### **Negative**

Multi nodal markets generally adversely impact liquidity.

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 GSB?

Arrow believes that information currently being provided combined with work being undertaken by AEMO and the industry will meet participant's needs.

## **The DWGM**

Arrow does not currently participate in the DWGM and makes no comment at this time.

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?

## **Transmission Pipelines**

Arrow believes that comments made in Principle 4 go to addressing the questions put by the AEMC below. In designing the appropriate mechanism for making access available the issues implied by the questions should be resolved.

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?