

2 July 2015



East Coast Gas Inquiry
Australian Competition and Consumer Commission
23 Marcus Clarke Street
CANBERRA ACT 2601

By Email: gasinquiry@accc.gov.au

Dear Commission

Submission to ACCC East Coast Gas Inquiry by Arrow Energy Pty Ltd & Arrow CSG Holdco Pty Ltd

Arrow Energy Pty Ltd and Arrow CSG Holdco Pty Ltd ("Arrow") welcome the opportunity to provide a submission to the Commission in response to the East Coast Gas Inquiry Issues Paper dated 4 June 2015.

Enclosed with this letter is the public section of Arrow's submission, being Annexure A and the confidential section of Arrow's submission being Annexure B. For the reasons described in Annexure B, the confidential section of Arrow's submission contains information which is highly commercially sensitive and confidential to Arrow and its related bodies corporate (as that term is defined in the *Corporations Act 2001* (Cth)). The disclosure of any of that information would damage the competitive position of Arrow and/or its related bodies corporate. Accordingly, Arrow requests that, pursuant to section 95ZN of the *Competition and Consumer Act 2010* (Cth) the contents of Annexure B not be disclosed to any person without Arrow's prior written consent, other than to:

- a member of the Commission or an associate member of the Commission; or
- a member of the staff of the Commission who receives the information in the course of his or her duties.

Arrow understands that if the Commission considers that Arrow's claim for confidentiality over Annexure B cannot be upheld the Commission will raise this with Arrow, and will give Arrow a reasonable opportunity to withdraw Annexure B prior to any public disclosure of information contained in Annexure B.

If you have any questions regarding the enclosed submissions please don't hesitate to contact me on (07) 3012 4452. Arrow would also be happy to meet with the Commission to assist with its inquiry.

Yours sincerely

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1. Background

Arrow is a joint venture company between Royal Dutch Shell (Shell) and PetroChina, (50/50). The joint venture partners acquired the ASX-listed Arrow in August 2010 with the express purpose of developing an integrated CSG-LNG business. The Company is focused on the exploration, extraction and use of coal seam gas (CSG), a naturally occurring clean burning energy source that is commonly used to fuel electricity generation and as an industrial input.

Arrow explores and develops CSG fields, produces and sells CSG, and generates and sells electricity. Arrow's assets and tenure are all located in Queensland although it has held tenure in NSW in the past.

It has operated a domestic east coast gas supply business since 2004. From five CSG fields in the Surat and Bowen basins in southern and central Queensland respectively, Arrow supplies CSG to:

- power stations connected to the National Electricity Market; and,
- industrial customers under long term contract

Arrow supplies around 5% of the current east coast gas market.

Arrow owns and operates the large gas-fired Braemar 2 power station (450MW) near Dalby and has off-take rights at two other gas-fired power stations – Daandine (west of Dalby, 100%) and Townsville (50%) – totalling 600MW of net generation capacity.

Since being acquired by Shell and PetroChina, Arrow has invested heavily in exploration and appraisal across its tenements, and continues to pursue development options in a challenging cost and market environment to deliver its shareholders the best value from its gas resource.

2. East Coast Gas Inquiry

As noted by the Australian Competition and Consumer Commission (ACCC) in its Issues Paper for this Inquiry, the growth of the CSG-LNG industry is making a major contribution to the Australian economy, creating thousands of jobs and business opportunities. This methane resource, once treated as a waste and impediment to coal production, is now an emerging energy source. It is of national importance, therefore, to address impediments to the further development of the east coast gas industry.

This annexure outlines aspects of the regulatory framework that add cost and risk to project development, and identifies improvements. Individually, these aspects may not significantly limit the incentive of gas producers to explore for and develop new gas reserves, however the cumulative effect does have a material impact. This is particularly so when producers are already challenged by the high cost of doing business in Australia.

This annexure also makes some observations about gas market development. The size of the gas market in eastern Australia is rapidly expanding, with significant growth in gas volumes, processing and transmission infrastructure and more market participants. A robust, stable, simple regulatory framework is needed to promote efficient outcomes while minimising compliance costs.

3. Regulatory Framework

Regulatory improvements could contribute greatly to Australia's ability to deliver competitive projects.

STREAMLINING REGULATORY PROCESSES

Assessing major projects at State and Federal Government levels is a prolonged approval process. Although recent initiatives by both the Queensland and Federal Governments have contributed to a shortening in approval timeframes there is scope for further improvement. For example, by reducing the duplication of Federal and State Government environmental approvals with a 'one-stop shop' that handles the approval process from end-to-end. This would improve the timeliness of decision-making and provide greater certainty for project proponents.

OVERLAPPING TENURE REFORM

Arrow commends the Queensland Government's leadership in developing a standard framework for areas of overlapping tenure in order to maximise resources development.

However, consent agreements currently take years and this introduces significant cost and risk for developers of gas projects.

The following key issues have been the subject of a Government-Industry Steering Group White Paper:

- parameters around how the minimum area of an Initial Mining Area is to be determined
- health and safety responsibilities in relation to operations conducted within the Simultaneous Operating Zone and in an underground Initial Mining Area
- principles of land access
- criteria for defining exception wells or fields which will justify an extension of notice periods
- methodologies for the calculation of compensation and assessment of production profiles
- methodologies for the calculation of reconciliation of compensation payments
- defining infrastructure that constitutes major and minor gas infrastructure
- treatment of stranded assets from the exercise of 'right of way'
- development of a code of practice
- development of a dispute resolution process and structures for independent expert determination
- unconventional and conventional reservoirs

It is critical that this package of reforms, as described in the White Paper, is introduced into legislation as soon as practicable.

TENURE MANAGEMENT

The current tenure management framework does not recognise the nature of large CSG-LNG projects - in particular the large geographic area of these projects, and resource certainty required to meet project economics and enter commercial gas sales agreements.

CSG producers require tenure certainty to optimise the production capability needed to supply domestic and export (via LNG) markets. Long term, large scale gas supply agreements must be underwritten with adequate terms of access that allow exploration and resource maturation without risk of premature diminishment due to tenure expiry. CSG producers must continuously reassess project development plans as they learn more about their tenure's resource; this is achieved throughout project execution and field operations, not before. Meeting this need requires a level of flexibility within the tenure management framework. Considering States are at different levels of maturity regarding tenure management, the following principles should apply universally:

- holistic administration of tenements that balances provision of reasonable timeframes and exploration expenditure requirements with turnover of resource.
- a "project based" approach to exploration that accommodates logical phasing of activities and expenditure, with the flexibility to vary obligations derived from knowledge acquired through the exploration process.
- a portfolio approach to gas production that aligns with markets and gas sales agreements allowing for phased development and investment.
- avoidance of fragmentation of resource through competing regulatory frameworks and resource developments. A move to outcome-focused regulation that allows companies to address issues between themselves on a commercial basis, with regulation as a fall back mechanism only.
- harmonised data and information collation through exploration and production activities, that is available to companies.
- codes of practice to facilitate maximum utilisation of infrastructure.

Arrow suggests that the initial tenure term be a minimum of 6 years and that consideration be given to retention leases like Mineral Development Licences.

A related issue is the treatment of adjoining Petroleum Leases. Currently adjoining Petroleum Leases are treated separately by legislation, even though they may be owned by the same company and form part of the same project. This adds a significant administrative burden to proponents. Ideally companies need to be able to consolidate Petroleum Leases to reduce project costs. This would reduce administration with no reduction in environmental or safety outcomes.

Additionally, the tenure management framework is such that it does not take account of the fact that the time required to prove-up the commercial value of CSG varies considerably across basins - where one set of coal measures may be deeper and tighter than those in another basin. This has been Arrow's experience in Queensland's Bowen and Surat basins. This situation has required Arrow to invest considerable time and effort to develop innovative basin-specific approaches. For example, a range of horizontal drilling techniques including drilling multiple lateral branches of considerable length, off a central bore and intersected by vertical wells 1500m (or greater) apart. Longer tenure terms should be contemplated for those areas requiring new techniques or technologies to commercialise.

Exploration Tenure terms, relinquishment, and production lease application requirements do not reflect this basin by basin difference.

WATER REGULATION

Coal seam water is groundwater that is extracted from coal seam aquifers. Water from these coal seams is widely utilised by various industrial sectors and also for stock and domestic purposes. However, coal seam water is currently classified as a “waste” in Queensland. This classification applies regardless of the water’s actual quality. Due to this classification coal seam water is subject to a complex framework which places many obligations on a petroleum tenure holder regardless of actual risk.

Arrow advocates treating coal seam water as a resource and not as a “waste”. In this way an environmental authority could allow for the supply and use of the water in accordance with recognised standards (e.g. the ANZECC Water Quality Guidelines) which would guarantee the water quality. This would simplify the regulatory framework through ensuring that disposal and supply are authorised through a single approval in accordance with recognised standards.

This approach could also be applied off-tenure and allow for water to be transported, supplied, and used without the requirement for a beneficial use approval, or other approvals, if it meets recognised water quality standards.

FINANCIAL ASSURANCE

Under Queensland legislation gas project developers are required to provide Financial Assurance (FA) for Environmental Authorities. However, under the current regulatory framework the requirement is not risk-based and does not account for the gradual development and then rehabilitation of CSG fields. It also fails to recognise that infrastructure is an asset and has value. Proposed changes by Government would result in a significant and unwarranted increase in the amount of FA from the CSG industry.

Government is currently reviewing proposed changes and has commenced a fundamental policy review to investigate substantive policy issues and industry has been asked to revisit the framework with Government.

FA should be based on the following principles:

- the accepted use of risk and discounting principles to ensure a reasonable amount of FA;
- the model and form of FA to reduce government and industry costs and to reduce reliance on banks inherent in the current FA regime; and
- the mechanics of the regime including the calculator, guideline and processes should reduce the current administrative burdens of the FA regime.

4. Gas Market Development

Arrow supports further development of eastern Australian gas markets to address current challenges and uncertainties. Any proposed changes should deliver overall productivity and economic efficiency. Arrow supports the assessment and implementation of an orderly gas market development process. Arrow considers the key areas that must be addressed are:

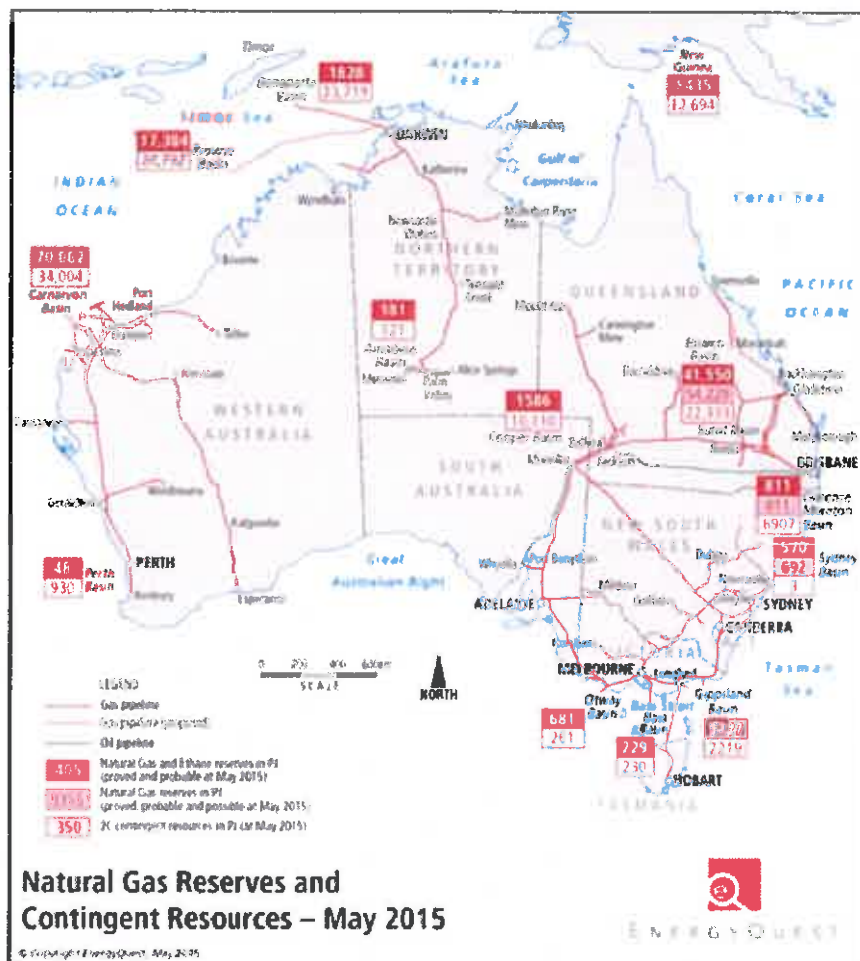
- Policy considerations
- Trading Hubs
- Access to Infrastructure
- Information access

POLICY CONSIDERATIONS

Current market structures and policy is largely based on historic configuration and supply arrangements. The market is now in transition with rapid growth driven by LNG projects presenting opportunities and challenges to the market that require fit for purpose policy to ensure future value is realised.

Australia has sufficient gas resources to meet both domestic and export needs (*Figure 1*). The market’s capacity to deliver depends on companies being able to explore and develop resources efficiently and Arrow supports fast-tracking of production and gas market development to address this.

Sufficient time for change needs to be considered in any decision making process, including appropriate consultation and transitional arrangements, particularly where major change is being proposed. Although the overall objective of policy should be to promote efficient markets, no participant should be materially disadvantaged by unexpected major changes.



Source: EnergyQuest

Figure 1 - Natural gas reserves and contingent resources, Australia, PNG and Timor

TRADING HUBS

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

Presently, multiple market designs (Victoria Declared Wholesale Gas Market and Qld Short Term Trading Market) make trading complex and inefficient for participants.

Hubs should be designed to facilitate participation and liquidity. Within day price signals, trading day definitions, consistency of trading periods, and settlement processes should be set so as to facilitate trade and support a more liquid market including encouraging forward products.

At a minimum the Wallumbilla Gas Supply Hub (**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. Trading at Roma Brisbane Pipeline can impact trading on the Short Term Trading Market (**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.

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

ACCESS TO INFRASTRUCTURE

Improving the efficient access and use of pipeline and gas infrastructure is a fundamental component of any efficient gas market. The full benefits of market developments and enhanced trading arrangements requires a more effective transportation regime, including capacity trading and access, which encourage efficient market outcomes.

Access to available capacity is fundamental to market development and must be addressed if the east coast gas market is to evolve efficiently. Effective capacity trading arrangements are essential to develop market liquidity, facilitate the development of the forward markets and ensure efficient utilisation of the network. Consideration should be given to all market-based options that facilitate greater access to capacity.

Clear market signals provide the best commercial incentive for owners to facilitate access. Market forces and price signals have proven to provide the most efficient mechanism in identifying the need for investment. Arrow would caution against direct Government investment. Private solutions are preferred, and public investment should only be provided where demonstrable market benefit exists.

The benefits of a single pipeline regulatory regime with clear links between revenue and market outcomes should be considered if the existing investment arrangements hinder market development.

Attaining access to capacity presents a number of challenges that must also be addressed:

- rights of existing asset owners
- impacts on risk position and opportunity (asset and capacity owner)
- mechanism for providing access

- commercial terms
- benefit to market

ACCESS TO INFORMATION

An important part of an efficient market is the availability of information to market participants. This 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. Arrow supports efficient improvements in information availability, transparency and discovery for the purpose of facilitating trade and liquidity, and providing clear price signals, where it does not compromise commercial-in-confidence.

The status quo may not be sufficient to support the market moving forward. Despite ongoing development and some modest changes, the information currently available on the Eastern Australian gas markets is inadequate to enable participants to respond to and manage risk. Data is fragmented and incomplete across multiple platforms and lacks the necessary frequency.

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.

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.

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

5. Conclusion

The east coast gas market is undergoing a period of rapid and significant transition. The ongoing development and review of policy settings is essential to realise the full potential of this industry. In a challenging cost and market environment, removal of impediments to efficient investment in new gas supply is critical. This submission highlights a number of improvements to the regulatory framework that will make a material contribution to the availability and competitiveness of gas supply.

