

## **Submission to the Inquiry into Domestic Gas Prices- WA**

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### Background

Natural gas is produced mainly offshore WA and converted into LNG. Gas is also produced by small fields and injected into the Dampier Bunbury Pipeline which pipes NWS gas to Perth and on to Bunbury. Examples of where gas joins the pipeline are found at Dongara and Woodada in the Perth basin. Such conventional gas reservoirs are limited in size due to their being found in geological structures which can act as high pressure storage sites. The limited extent of supplies from these smaller fields is a result of the need expressed by previous governments, to retain some amount of residual gas from LNG export developments for domestic use. This has caused some pain from gas exporters who require to maximise their profits when, in fact, retaining supply for a domestic market has the potential to depress gas sale prices.

The premise of this policy is that the gas supply to Western Australia is limited, because the reservoirs are limited in extent. This premise is outdated and incorrect, since there is an alternative supply of gas pervasive across Western Australia- it is known as 'shale gas'.

As natural gas supplies were declining in the U.S., the gas exploration industry began testing alternative gas supplies, starting with coal seam methane supplies. Having found that the economics are right, the U.S. industry has developed the coal seam methane into a mature gas production industry. However, they have successfully continued their search for additional alternative economic gas supplies.

In Texas, the Barnett Shale over the last two years has become a revelation in how to exploit shales containing gas. Today, the city of Fort Worth (pop. 800,000) has its energy needs in gas fully supplied by drilling rigs drilling around the city - fracturing the Barnett shale formation - to produce gas which is locked away in tight pores within the shale. Furthermore, this shale is pervasive. It is flat (does not have traditional gas structure) and is spread over enormous distances in Texas and into other States. Shale gas presently supplies an estimated 15 to 20% of US gas production, with the expectation of it quadrupling over the next few years with proven reserves having increased by 38% over the last nine years.

By comparison, the Perth and Canning Basins in WA have many shales containing gas, which go unexploited- the Perth Basin alone being four times larger than those containing the Barnett Shale. These shales are not a single shale formation as is common in the U.S., but are multiple stacked shales. Their quality has been barely investigated, with the recent Exploration Incentive Scheme putting up \$150,000 over 3 years to assist the establishment of an industry consortium based at Curtin University, to investigate the potential for shale gas in WA. But we must ask, why doesn't industry fund the exploration for what could be a long and steady commercial supply of gas to Perth and its surrounding communities and industries? This is because the price of gas is too low and the risk associated with excess supplies forced into the state due to the domestic reservation policy depresses investment incentive.

### Gas Pricing

The DomGas reserve effects on price and security. The price of natural gas in WA is affected by the imposition of the domestic reserve requirement for LNG export projects, and the reservation may actually significantly reduce the long-term security of supply for the primary business community in the State. The effect on the price is to potentially artificially depress the price below its market value.

Price will be artificially depressed due to an artificial supply built on a government mandate rather than an actual commercial market demand, as well as the fact that this excess supply of gas will be behind a limited capacity pipeline. The artificial price will further depress the incentives to develop natural gas supplies from shale gas, as well as other sources. WA may well be held hostage to the market power of the pipeline owner.

The artificially depressed price for the northwest supplies will stimulate excess demand for natural gas to the south which will require pipeline capacity expansions beyond what the un-manipulated market would call for. However, this expansion of the pipeline will not reduce the vulnerability of the Perth economy to disruptions associated with either production in the north or pipeline transportation in between.

If the price for natural gas supplies is artificially reduced below its true market value due to the domestic reservation requirement this will send signals to domestic gas explorers that say there is insufficient profit to be made in exploiting the reserves of shale gas to justify investment in exploration and development. This will lead to lack of exploration and development that otherwise would occur, which means that the potential domestic gas supply will be less than otherwise, resulting in domestic gas supply security being reduced.

Additionally, given the domestic reservation requirement, at any time a new significant gas find occurs in the offshore, a new unexpected "supply" of gas reserves will be thrust upon the limited WA market. This uncertainty also diminishes any incentive to invest in exploration for gas in interior WA shales.

Forcing, or attempting to force, companies to provide commodities or services (such as pipeline transportation) at artificially reduced prices will provide insufficient incentives to properly maintain these productive facilities, which will then likely lead to system failures that may cause not only supply disruption but issues such as the Varanus Island explosion. The lack of incentive to fully and properly maintain these facilities increases the supply insecurity even while seemingly increasing it with the artificially imposed domestic reservation requirement.

### Conclusion

We suggest that there is no need for a reserve to be made to supply the DomGas market. There is sufficient gas in shales pervasive across the State of WA to maintain the State in security of gas supplies until well after the NWS has depleted. In order for this to be realised, more exploration should occur and expanded incentives be offered to the gas supply industry to make this alternative an attractive proposition. We suggest that the solution is to remove the reserve requirement and allow gas prices to rise to their market value, which will provide investment incentives for shale gas exploration.

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