

# The facts on Domestic Gas



DOMGAS  
ALLIANCE

- Western Australia depends on natural gas for 60% of its primary energy and 70% of its electricity generation.
- Despite the State's "abundant" gas resources, businesses and households face serious gas shortages and sharply rising prices. This is threatening manufacturing, investment and jobs.
- The State's 15% domestic gas reservation policy is the most effective means of ensuring secure and affordable supply.
- Without reservation, large LNG export projects are unlikely to develop sufficient supply to meet the State's energy needs.

## How critical is natural gas to the WA economy?

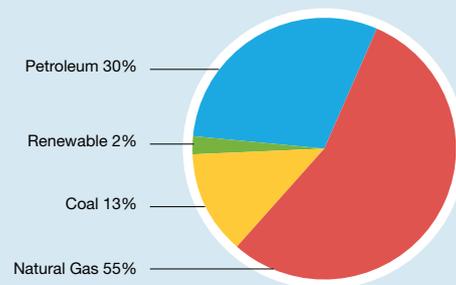
Western Australia is the most energy - and gas - dependent economy in Australia. Manufacturing, investment, small business and households depend on secure and affordable gas supply.

## Is WA experiencing a gas shortage?

Despite having Australia's largest natural gas reserves, WA continues to suffer a serious gas shortage and sharply rising prices. Local industry is struggling to secure affordable long-term contracts. Gas producers are focused on maximising LNG exports and are signing 20-25 year contracts to export the State's gas to customers in China, Japan, Korea and India.

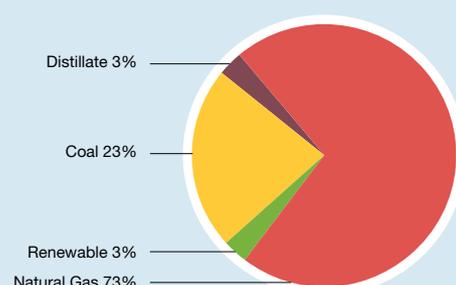
Without long-term energy certainty, WA companies cannot invest in major new projects or sustain existing industries and jobs.

WA energy consumption by fuel



Source: ABARE, Energy in Australia 2010 (Energy consumption, 2007-2008)

WA electricity generation by fuel



Source: WA Office of Energy, Energy and Resources Infrastructure 2009

### How do WA gas prices compare to the rest of Australia and overseas?

Wholesale gas prices have risen from around \$2.50 per gigajoule in 2005 to \$7-8 and, as high as \$10-12. WA gas prices are up 2-3 times the price of gas in Victoria (\$3.50/GJ) or the United States (\$4/GJ).

### What is the cost to the economy?

Western Australia consumes around 514 petajoules of gas each year or around 514 million gigajoules per year. At historical prices of \$2.50 per gigajoule, the State would spend around \$1.2 billion a year on natural gas.

At prices of \$8 per gigajoule however, the State's annual gas bill would rise to over \$4 billion as existing contracts expire and are subject to significant price increases. This cost will be borne directly or indirectly by every business and household in the State.

### Are price hikes due to rising producer costs?

There is little evidence that WA's sharply rising gas prices are due to rising producer costs. According to Woodside's 2010 Annual Report, gas lifting costs (the cost of extracting gas and delivering it into a processing plant) rose from 31 cents in 2005 to 55 cents in 2010.<sup>1</sup>

Over the same period, the North West Shelf Project has increased prices from around \$2.50 per gigajoule to around \$8 per gigajoule. The North West Shelf Project is over 25 years old with sunk capital costs.

### Shouldn't gas prices reflect international prices?

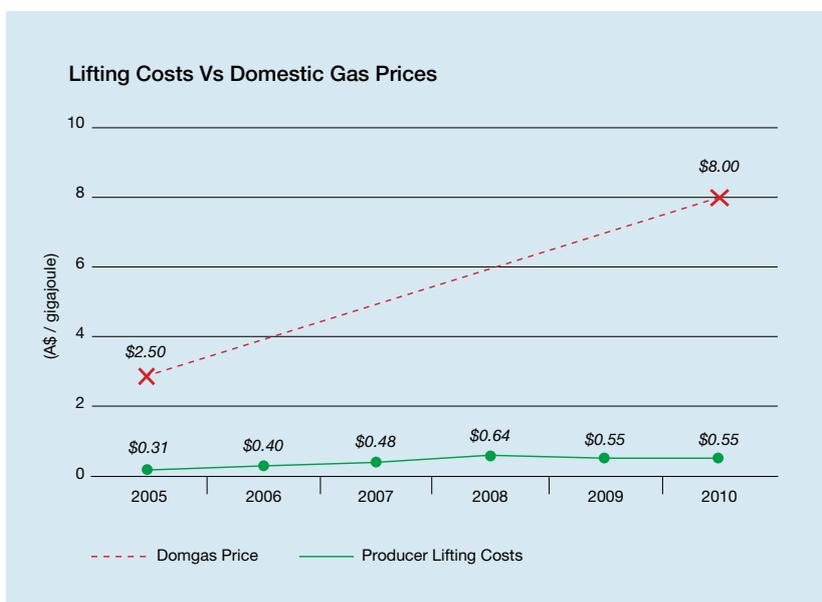
There is no international price for gas. Prices vary considerably between different countries and regions and reflect local conditions, national resource endowments and government policies. WA now has some of the highest gas prices of any gas exporting economy.

It makes little economic sense for Australian industry and households to be paying the same price as consumers in energy-poor countries like Japan or China.

### Why is a domestic gas reservation policy needed?

Without domestic gas, Western Australian cannot sustain investment, economic growth and jobs. The State's 15% domestic gas reservation policy is the most effective means of ensuring sufficient supply at affordable prices.

The WA Parliamentary Inquiry found that without gas reservation, LNG producers are unlikely to build adequate domestic gas processing facilities to supply the WA market.



<sup>1</sup> Lifting costs source: Woodside 2010 Annual Report, includes North West Shelf Project (38.5 MMboe) and Otway (0.9 MMboe) production. Conversion factor: 1 boe is approximately 6.1 GJ.

**Isn't there plenty of gas from new projects like Macedon, Reindeer, Gorgon and Wheatstone?**

Currently, 65% of WA's domestic gas is supplied by the North West Shelf Project. The Project is over 25 years old with production expected to fall significantly in the coming decade.

Projections by the DomGas Alliance and the WA Government indicate that supply from new projects will not be sufficient to meet the State's domestic gas needs. The State faces a serious shortfall in the coming decade.

**Does domestic gas reservation work?**

The Wheatstone Project is an example of the domestic reservation policy in action. The Project will supply domestic gas equivalent to 15% of LNG capacity and production with first gas targeted for 2016 to coincide with LNG start-up. Supply will increase over time with LNG exports from the initial 187 terajoules per day (TJ/d) to around 500 TJ/d.

Domestic gas reservation has been a feature of the WA gas industry since the 1970s with the North West Shelf Project domestic gas supply obligations.

**Why is Commonwealth support for the State's reservation policy important?**

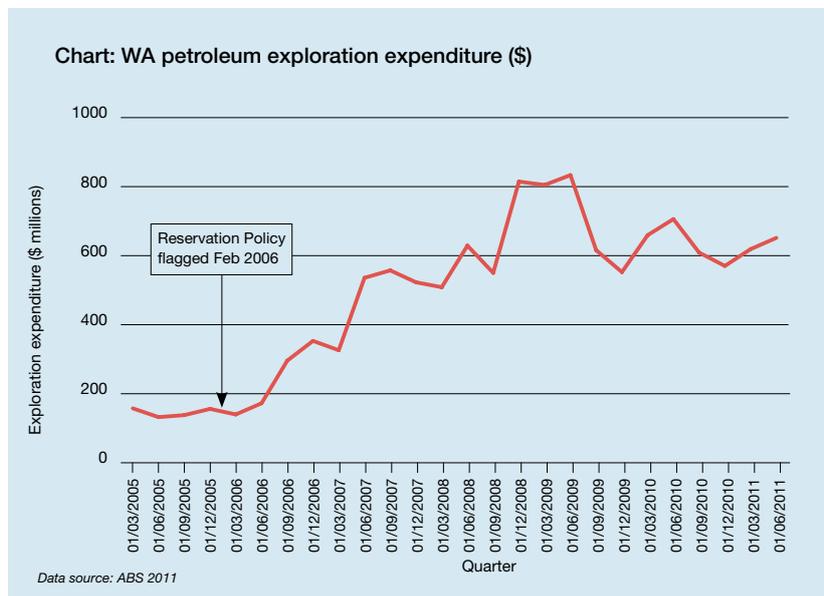
While WA has some onshore and inshore gas reserves, the bulk of the State's gas is located offshore in Commonwealth waters. Many of the decisions and policies, such as regulation of offshore petroleum tenements, are controlled by Canberra.

Floating LNG technology such as Shell's Prelude Project further reduces the State's powers to secure domestic gas as producers can conduct all production in Commonwealth waters without supply gas to the WA market.

**Does the reservation policy discourage exploration and investment?**

There is no evidence to support claims that domestic gas reservation has deterred gas exploration or investment in WA. In fact, exploration expenditure in the State significantly increased following the announcement of the State's 15% reservation policy in 2006.

The decision by the Wheatstone Project partners to proceed demonstrates that the reservation policy is no barrier to exploration and investment.



### **Does the reservation policy increase sovereign risk?**

Australia is one of the few gas-exporting countries without a domestic gas security strategy. According to a Curtin University report, 92% of world natural gas reserves are controlled by national governments or national oil companies.

The absence of a national reservation policy in fact discourages investment. Projects and jobs are being lost overseas as companies are unable to secure long-term energy certainty.

### **Have other countries adopted similar policies?**

Governments around the world are acting to secure vital energy resources. Egypt has a 67% reservation policy that reserves one-third of natural gas for exports, one-third for domestic use and one-third “to save for our children”. The policy has not discouraged Apache Energy from exploring or investing in Egypt which accounts for the company’s largest acreage position and 30% of global revenue.

Qatar, the world’s largest LNG exporter, has a moratorium on further expansion of LNG exports until 2013 because of uncertainty over gas reserves. Qatar has around eight times Australia’s natural gas reserves and one-twentieth the population.

Western Australia’s 15% gas reservation policy is modest by international standards.

### **What approach is the United States taking on LNG exports?**

The US Energy Department has approved the export of LNG from the Sabine Pass on the condition that such exports must not lead to a reduction in US domestic supply or an increase in US domestic gas prices to “international” prices.

The US Energy Department indicated it would take appropriate action as necessary, which could include revoking approval for LNG exports. US Henry Hub domestic gas prices are around \$US 4 per gigajoule.

### **Are gas producers being forced to subsidise local customers?**

The reservation policy does not require producers to sell at a loss. The domestic market remains a highly profitable one with the highest gas prices in Australia.

In fact, the WA Parliamentary Inquiry found that due to the sharp rise in prices and the significant tightening of contract terms offered by gas producers, WA gas prices were now approaching or exceeding “LNG-netback prices” (the price of gas delivered to Japan or China minus LNG processing and transport costs).

### **What role did government have in developing the gas industry and LNG exports?**

Development of the North West Shelf Project and subsequent LNG industry was possible with significant financial support from the State, the Commonwealth and WA gas customers.

The State underpinned the Project by entering into a long-term take-or-pay contract for domestic gas and constructing the Dampier to Bunbury Natural Gas Pipeline. The original SECWA contract required the State to pay for gas even if there was no demand for it. By the mid-1990s, the State had paid over \$300 million for gas it had not received.

The domestic supply contracts were high priced contracts and did not result in “subsidised” gas prices for domestic customers. Under the pricing formula, two-thirds of the gas was priced against what was then high-priced Collie coal. One-third was priced against imported oil.

### **Is there sufficient competition in the marketplace?**

Western Australia does not have an open and competitive market and is one of the most anti-competitive in Australia. The ACCC has repeatedly intervened in the market to allow the world’s biggest gas producers to combine together to set prices and contract terms when selling to local customers. This confers immense market power of gas producers which has resulted in the highest domestic gas prices in the country.

### Is the WA market too small and immature to support competition?

The WA gas market is the biggest in Australia, accounting for almost 40% of Australia's natural gas demand. It is almost as big as NSW, Victoria and Queensland combined. Joint selling by major gas producers and the absence of competition remains the biggest barrier to a more mature and developed market.

### What are the risks to climate change?

Natural gas produces less than half the greenhouse emissions compared to coal. At current prices however, natural gas is no longer competitive with coal for baseload power. This makes coal a far more economic option.

The gas shortage is forcing WA to build new coal-fired power stations at a time when the rest of the world is switching to cleaner energy. This is unlikely to change under the carbon tax. At current WA gas prices, natural gas would only be competitive with coal for baseload power generation at an over \$90 per tonne carbon cost.

### Isn't Australia saving global emissions by exporting LNG?

Using natural gas to fuel local industry and power generation is by far the most greenhouse and energy-efficient use of the State's clean energy resources.

LNG is energy-intensive and requires gas to be liquefied, shipped long distances and then regasified before it can be used as a fuel. Around 26% of the energy is lost in the supply chain. In comparison, domestic pipeline gas is over 92% energy efficient.

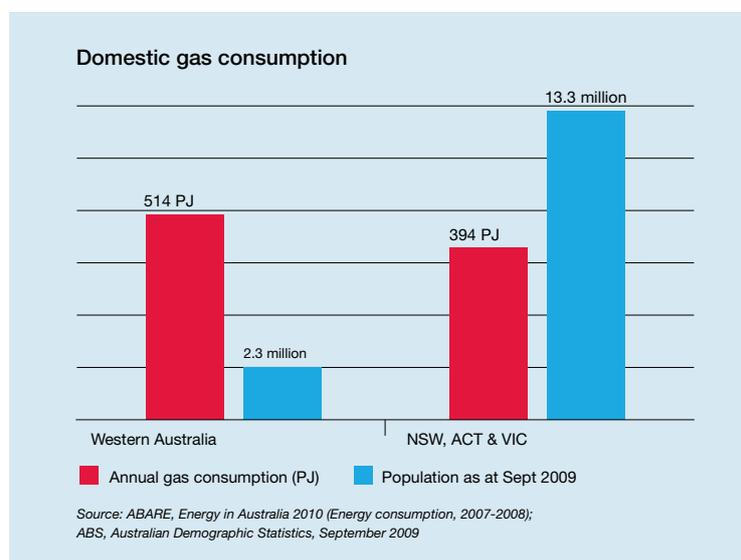
### Is pipeline capacity a barrier to supply?

The current shortage is due to a lack of gas entering the Dampier to Bunbury Natural Gas Pipeline. It has nothing to do with capacity of the pipeline itself. The DBNGP is now 83% duplicated along its length – effectively creating a second pipeline. Capacity of the pipeline can be increased in less time than it takes to build a new gas supply project, or a major gas-using facility such as a power station or major resource development.

### Is the "long, skinny" pipeline a threat to energy security?

The DBNGP is located underground and well protected. Any breach of the pipeline can be repaired within around three days. Damage to one section of the pipeline can usually be bypassed.

None of the recent gas supply outages related to the pipeline. They instead related to an electrical fault at the North West Shelf Gas Project's processing plant, a fire at Apache Energy's Varanus Island processing plant, and a cyclone shutting gas production of the North West Shelf.



# The DomGas Alliance

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The DomGas Alliance is Western Australia's peak energy user group and represents natural gas users, infrastructure investors and prospective domestic gas producers. The Alliance promotes security and affordability of gas supply.

Alliance members represent around 80 percent of Western Australia's domestic gas consumption and transmission capacity, and supply gas and electricity to 800,000 households and 200,000 small businesses.

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