



DOMGAS  
ALLIANCE

# Australia's Domestic Gas Security

REPORT 2012



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# The DomGas Alliance

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.



# Executive Summary

- Australia's prosperity and living standards are built on a competitive advantage in energy, including natural gas.
- At a time when manufacturing faces significant challenges, competitively priced energy is one of the few advantages Australia has to offer and which government can help deliver.
- Australia is the only country in the world that allows international oil companies to access and export natural gas without prioritising local supply.
- It is also the only gas exporting country to experience serious gas shortages and sharply rising prices.
- Gas prices have tripled in Western Australia and doubled in Queensland. Reports that gas producers are in talks to export Bass Strait gas through Queensland should ring alarm bells for SA, NSW, Victoria and Tasmania.
- The sharp rise in gas prices will be borne by every business and household. This could equate to an extra \$597 million in annual gas bills in Queensland, an extra \$477 million in NSW, an extra \$789 million in Victoria, an extra \$399 million in South Australia and an extra \$3.1 billion in Western Australia.
- At current gas prices, a \$60-90 / tonne carbon price would be needed to make gas competitive with coal for baseload power generation. The carbon tax will have no impact in shifting energy use from coal to gas and will only drive up energy prices.
- Despite a massive expansion in gas production, Australia is experiencing serious gas shortages and sharply higher prices.
- Most of Australia's gas resources are controlled by the world's biggest oil and gas companies. Their preference is to conclude multi-billion dollar LNG contracts with a handful of overseas customers, rather than sell to many smaller Australian companies.
- While this might be legitimate commercial practice, it does not equate to Australia's national interest. Government action is needed to address market failure.
- A national reservation policy would ensure energy security by requiring major LNG projects to set aside 15% of gas production for local industry and households.
- Domestic reservation has worked in Western Australia since the 1970's. Under the State's reservation policy, the Wheatstone Project has committed to supplying domestic gas equivalent to 15% of LNG production.
- The United States has conditioned LNG exports on producers ensuring affordable supply to US industry.
- Canada requires export permits and export price tests to ensure the domestic market is not disadvantaged in any way from gas exports.
- 92 per cent of the world's natural gas is controlled by national governments or national oil companies.
- The evidence in Western Australia and overseas is overwhelming. A national reservation policy will not discourage investment or make Australia a less attractive place to invest. It will promote energy security.

# Importance of Domestic Gas Supply

## Key Points

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- Australia's economic prosperity and living standards have been built on a competitive advantage in energy, including natural gas.
- At a time when manufacturing is facing significant challenges, competitively priced energy is one of the few advantages Australia has to offer and which government can help deliver.
- This advantage is being lost overseas as major gas producers focus on maximising LNG exports to China, Japan and Korea.
- Gas prices have risen sharply from \$2.50 per gigajoule in Western Australia to \$8/GJ, and from \$3-4/GJ to \$6/GJ in the East Coast.
- The hit to industry and households in annual gas bills will be an extra \$590 million in Queensland, an extra \$789 million in Victoria, an extra \$477 million in NSW, an extra \$399 million in South Australia and an extra \$3.1 billion in Western Australia.

## 1. Australia's domestic gas market

Australia's rich endowment in coal and natural gas resources makes energy a key competitive advantage. Secure and affordable energy underpins investment, employment and living standards.

At a time when the manufacturing sector is facing significant challenges from rising labour costs and a soaring exchange rate, competitively priced energy is one of the few advantages Australia has to offer and which government can help deliver.

Natural gas fuels 23% of Australia's primary energy and 15% of its electricity generation.<sup>1</sup> This makes natural gas a critical energy resource.

Demand for natural gas has grown from 1052 petajoules (PJ) in 2004-05 to 1371 PJ in 2009-10, a 30% increase. The Federal Government projects that gas-fired generation could make up 44% of generated electricity by 2050, driven by the implementation of a carbon price.<sup>2</sup>

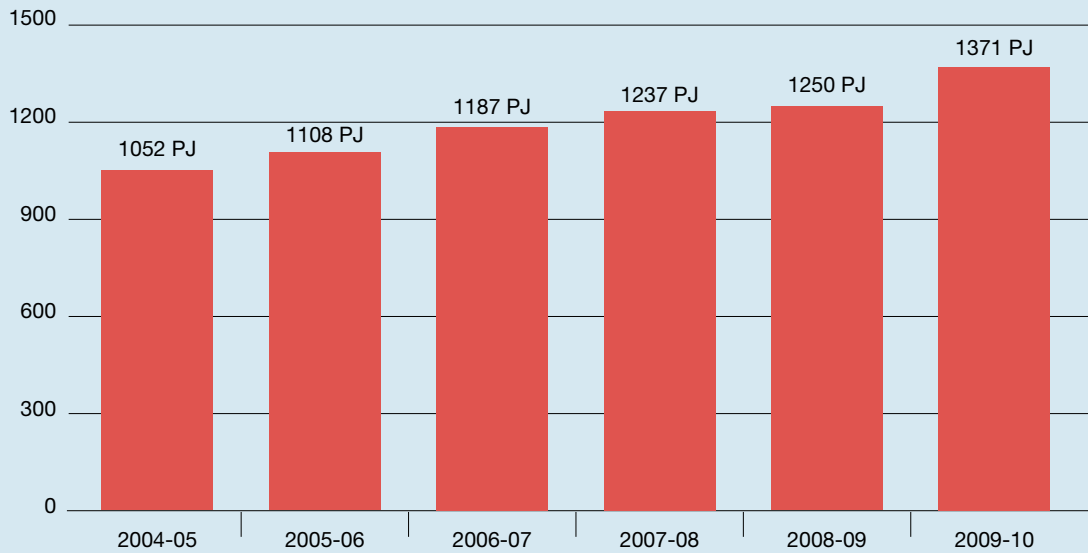
Western Australia is Australia's most gas-dependent State. Natural gas fuels 55% of its primary energy and 73% of its electricity generation.<sup>3</sup>

<sup>1</sup> BREE, *Energy in Australia 2012*

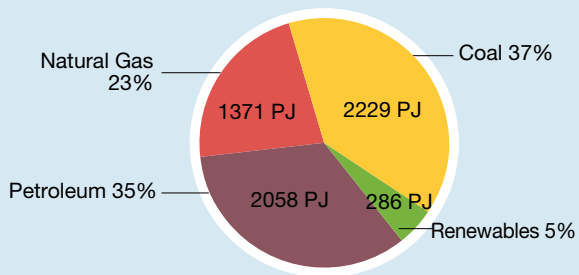
<sup>2</sup> Treasury, *Strong growth, low pollution: modelling a carbon price, 2011*; ABARE, *Australian energy statistics*

<sup>3</sup> BREE, *Energy in Australia 2012*; WA Office of Energy, *Energy and Resources Infrastructure 2009*

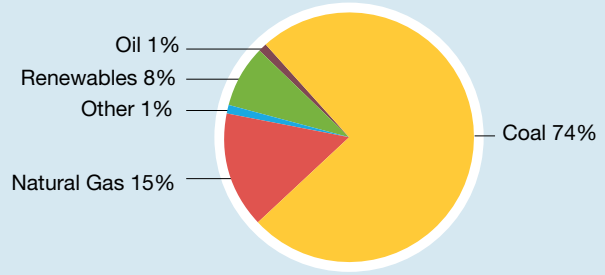
### Australia's natural gas consumption



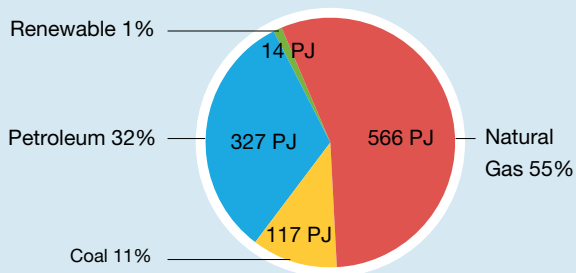
### Australia's energy consumption by fuel



### Australia's electricity generation by fuel



### WA energy consumption by fuel



Source: BREE, Energy in Australia 2012

## 2. This competitive advantage is being lost overseas

Despite Australia's substantial gas resources, local industry is experiencing serious gas shortages and sharply rising prices. Major gas producers are focused on maximising LNG exports and signing 25 year contracts to supply gas to customers in China, Japan, Korea and India.

In Western Australia, gas prices have risen sharply from \$2.50 per gigajoule to as high as \$12/GJ. Gas users are struggling to secure long term gas contracts that would underpin new manufacturing investment or new gas-fired power generation.

In Queensland, gas prices have risen from \$3-4 per gigajoule to \$6-7/GJ with producers targeting exports through the Gladstone LNG plants. With the Queensland energy market characterised by shorter term gas contracts, the hit to local industry and households will be faster and harder than in WA.

East Coast gas producers are now talking publicly of even higher prices - up to \$8/GJ (Origin and AGL) and up to \$9/GJ (Santos).

Reports that BHP Billiton and ExxonMobil have started talks to export Bass Strait gas through Gladstone LNG should also ring alarm bells for SA, NSW, Victoria and Tasmania. These States, and their manufacturing industries, depend on Bass Strait gas for energy.

Without long term energy security, industry cannot invest in new projects or sustain existing operations or jobs.

***"Put brake on gas exports: manufacturers"***, *The Australian Financial Review*, 29 March 2012 (extract)

Manufacturers of chemical and industrial products have called on the federal government to overhaul its energy policy to ensure Australia keeps more of its abundant gas resources to feed an increasingly sophisticated manufacturing sector.

Speaking at the launch in Sydney yesterday of the Future of Manufacturing in Australia Forum, Incitec Pivot chief executive, James Fazzino said the government could also put downward pressure on electricity costs.

Australia was wasting a huge opportunity to benefit from gas by exporting most of the resource at the low end of the value chain, he said. The government could force some projects to keep a proportion of the gas onshore.

Incitec Pivot wants to invest \$700 million in an ammonia plant either in Australia or the United States, but the gas price in Australia makes it less attractive.

"If you take gas and you export it via LNG, you create about three times value-add. If you take that same molecule of gas and produce say an explosive emulsion, one of our high tech explosives, you increase its value by 20 times," he said.

Dow Chemical chief executive and chairman Andrew Liveris said it was a "travesty" that overseas gas companies were dictating gas prices here.

"This is not a free market, this is an unfair market," he said.

### **3. Massive increase in production, yet sharply higher prices**

Australia is the only country where a massive expansion in production has led to serious gas shortages and sharply higher prices for consumers. Even higher prices are projected for the future.

Most of Australia's gas resources are controlled by the world's biggest oil and gas companies. Their preference is to conclude multi-billion dollar LNG contracts with a handful of overseas customers, rather than sell to many smaller Australian companies. While this might be legitimate commercial practice, it does not equate to Australia's national interest.

### **4. The cost to industry and households can be quantified**

The sharp rise in domestic gas prices is having a direct impact on industry and households. Western Australia consumes around 566 petajoules of natural gas each year or around 566 million gigajoules per year.<sup>4</sup> At historical prices of \$2.50 per gigajoule, the State would spend around \$1.4 billion a year on natural gas.

At prices of \$8 per gigajoule, the State's annual gas bill would rise to over \$4.5 billion as existing contracts expire and are subject to price increases – an increase of \$3.1 billion. This cost will be borne directly or indirectly by every business and household in the state, but especially by value-adding manufacturing industries dependent on competitively priced energy.

Queensland consumes around 199 petajoules (PJ) of natural gas each year.<sup>5</sup> A rise in gas prices from \$3/GJ to \$6/GJ could cost Queensland industry and households an extra \$597 million in annual gas bills.

New South Wales consumes around 159 PJ of natural gas each year.<sup>6</sup> A similar rise in gas prices could cost the State an extra \$477 million in annual gas bills.

Victoria consumes around 263 PJ of natural gas each year. A similar rise in gas prices could cost the State an extra \$789 million in annual gas bills.

South Australia consumes around 133 PJ of natural gas each year. A similar rise in gas prices could cost the State an extra \$399 million in annual gas bills.

The above figures only seek to quantify the increased cost from higher gas prices. They do not take into account multiplier impacts from lost investment and jobs, business closures and falling tax revenues.

In Western Australia, electricity retailer Synergy supplies over 970,000 residential and commercial customers. 240,000 customers (1 in 4) already receive assistance from State Government concessions and rebates. The number of residential customers disconnected for failure to pay has jumped 300% from 2,744 in 2009/2010 to 7,631 in 2010/2011.<sup>7</sup>

<sup>4</sup> ABARE, *Energy in Australia 2010*.

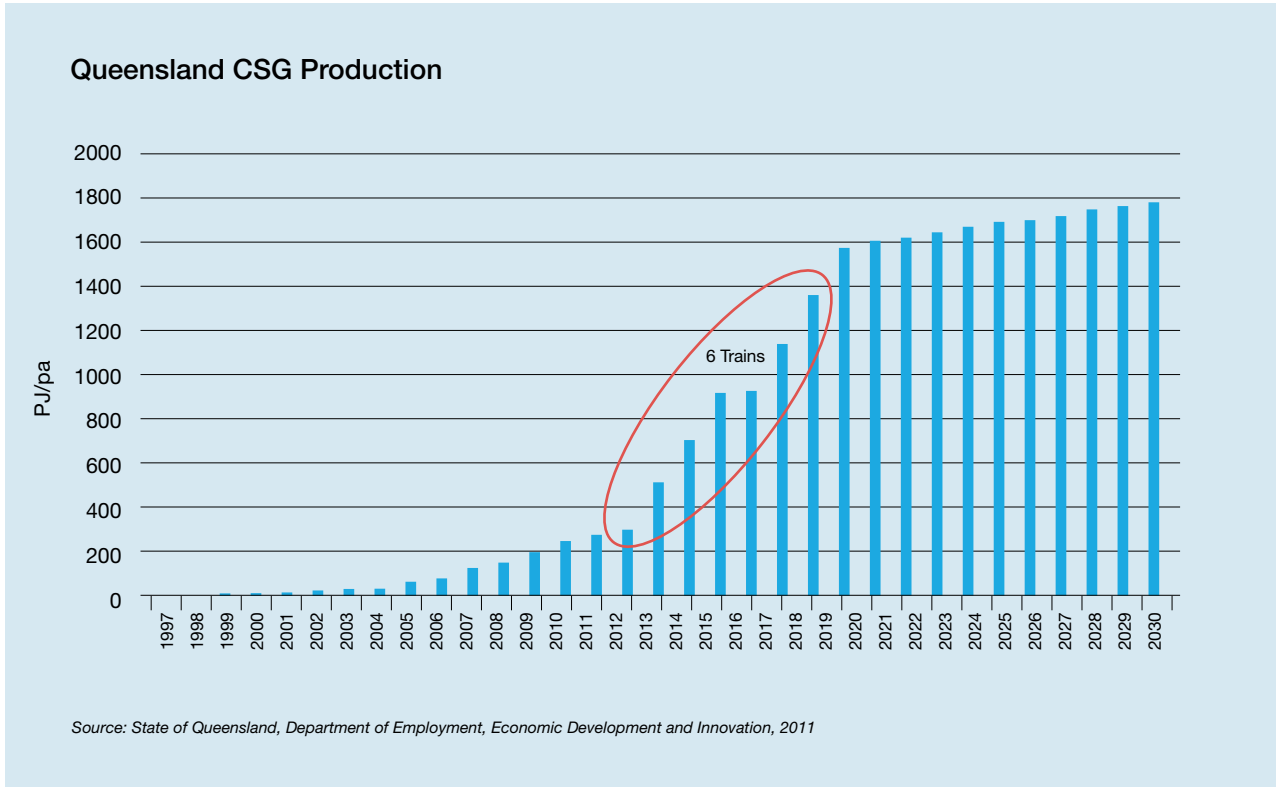
<sup>5</sup> BREE, *Energy in Australia 2012*.

<sup>6</sup> BREE, *Energy in Australia 2012*.

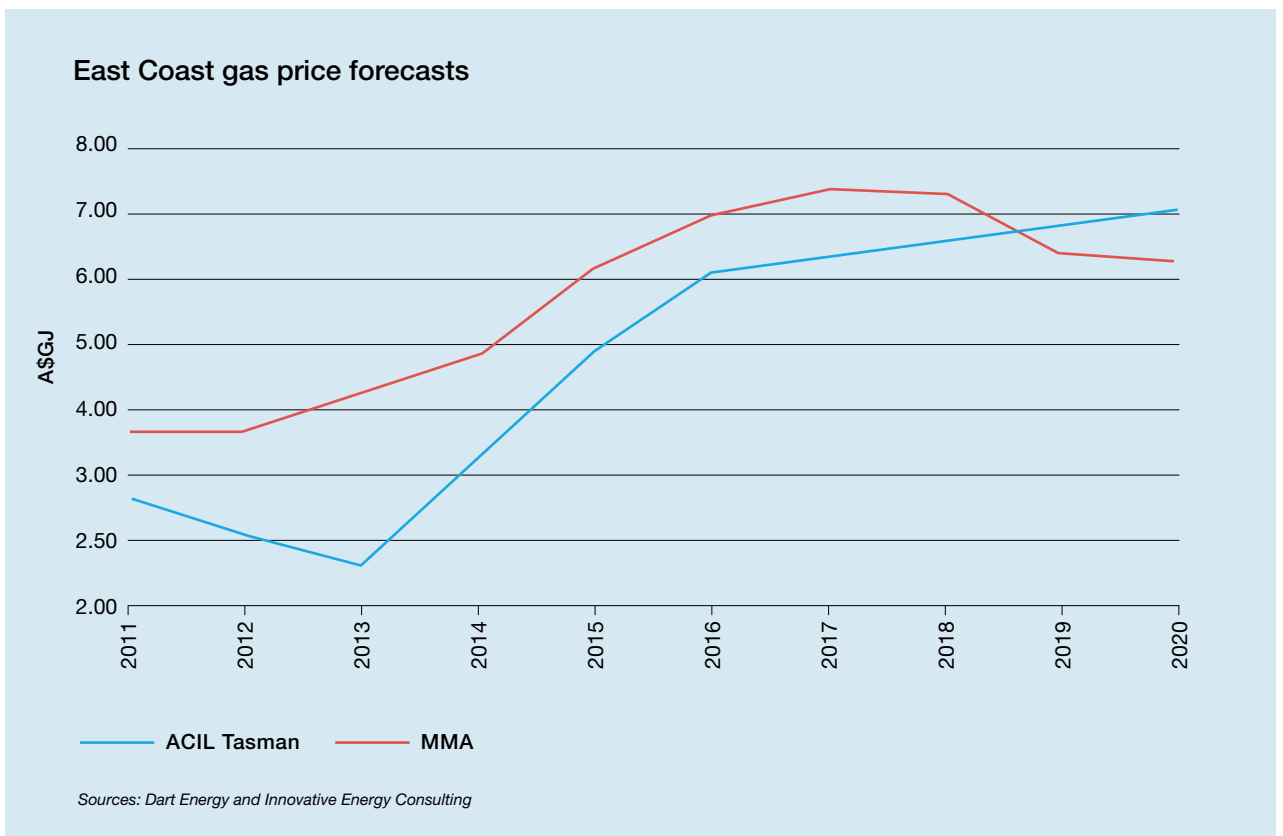
<sup>7</sup> Synergy, *Electricity Retail Licence Performance Report 2010/2011 and 2009/2010*.



**Chart: A ten-fold increase in Queensland gas production**



**Chart: A doubling in domestic gas prices**



**Table: Impact of higher gas prices on annual gas bills**

<b>State</b>	<b>Annual gas consumption (petajoules PJ)</b>	<b>Annual gas bill at historical prices</b>	<b>Annual gas bill at new prices</b>	<b>Additional cost to industry and households</b>
<b>Queensland</b>	199	\$597 million	\$1.2 billion	\$597 million
<b>NSW</b>	155	\$477 million	\$954 million	\$477 million
<b>Victoria</b>	263	\$789 million	\$1.6 billion	\$789 million
<b>South Australia</b>	133	\$399 million	\$798 million	\$399 million
<b>Western Australia</b>	566	\$1.4 billion	\$4.5 billion	\$3.1 billion

Source: Annual gas consumption from BREE, *Energy in Australia 2012*. Domestic gas prices used are: Western Australia \$2.50/GJ historical, \$8/GJ new; Eastern States \$3/GJ historical, \$6/GJ new

## Impact of Australian Manufacturing and Jobs

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- Dow Chemicals warns that gas prices are now uneconomic for new chemical manufacturing investments in Australia
- Rio Tinto reports it is unable to secure long term gas supply for its operations in Queensland
- National Generators Forum report that power generators have been unable to secure long term gas contracts
- Incitec Pivots reports gas prices make it less attractive to invest in a \$700 million ammonia plant in Australia compared to in the US
- Cement Australia's Gladstone operations were unable to secure a gas supply contract and make the switch from coal to gas
- Alcoa suspends a multi-billion dollar expansion of its Wagerup alumina refinery with lack of certainty around long term gas supply a key factor
- Burrup Fertilisers fails to secure competitively-priced gas from the Gorgon Project to underpin investment in a new urea plant
- ERM Power and Griffin were unable to source gas for proposed new gas power station developments
- DBP significantly downsizes an expansion of the Dampier to Bunbury Natural Gas Pipeline in 2006 as a number of prospective projects were unable to secure gas supply
- Coogee Chemicals reports that current domestic gas prices of \$8 - \$15 per gigajoule has investment in new onshore downstream processing uneconomic
- Coogee Chemicals shuts a WA manufacturing plant in 2009 because of the rising cost of production
- DBP tenders for additional pipeline gas fails when the prospective supplier withdrew its offer
- Very high gas prices force construction materials manufacturer Adelaide Brighton to switch to coal
- Wesfarmers Chemicals reports that gas prices make it completely uneconomic to expand ammonia production or invest in new value-adding chemical processing despite significant market demand

# Australia is the only country that allows gas exports without prioritising local supply

## Key Points

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- Australia is the *only* country that allows international oil companies to access and export natural gas without prioritising local supply.
- It is also the *only* gas exporting country experiencing serious gas shortages and sharply rising gas prices.
- Canada requires export permits and export tests to ensure the domestic market is not disadvantaged from gas exports.
- The United States has conditioned LNG exports on producers prioritising the local economy and ensuring affordable supply to US industry.
- 92% of the world's natural gas resources are controlled by national governments or national oil companies.

## 1. Energy resources are owned by the nation

Most countries recognise that energy resources are owned or regulated by the nation. Major gas producers can access and export resources only to the extent that they do so in a safe, reasonable and prudent manner that benefits all of the stakeholders of the host country.<sup>8</sup>

Australia is the only country that allows international oil companies to access and export gas resources without prioritising local supply.

It is also the only major gas exporting country experiencing serious gas shortages and sharply rising gas prices.

According to a Curtin University report, 92% of world natural gas reserves are controlled by national governments or national oil companies. Governments around the world are acting to secure vital energy resources. A 15% gas reservation policy is very modest by international standards.<sup>9</sup>

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.<sup>10</sup>

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.

As the US Energy Information Administration observed, “many countries that are LNG exporters have some form of domestic reservation regime in place to encourage local consumption”.<sup>11</sup>

<sup>8</sup> Innovative Energy Consulting, *Submission to the WA Strategic Energy Initiative 2030*, 2011.

<sup>9</sup> Leonard, Manuhutu and West, *Domestic Energy Reservation Policies: An International Comparison*, Curtin University, 2008.

<sup>10</sup> Ibid.

<sup>11</sup> Cited in the WA Parliamentary Inquiry report, para. 279.

## 2. The United States

In the United States, domestic gas prices have fallen in recent years from \$14/GJ to as low as \$2.50/GJ (Henry Hub). To secure this advantage, the US Government has conditioned approval of new LNG exports from the Sabine Pass on gas producers prioritising the local economy and ensuring affordable prices.

The US Energy Department has warned US gas producers that it would closely monitor the impact of LNG exports on the domestic market and that it will take any necessary action, including revoking future export approvals:

“We intend to monitor those conditions in the future to ensure that the exports of LNG authorized herein and in any future authorizations of natural gas exports do not subsequently lead to a reduction in the supply of natural gas needed to meet essential domestic needs. The cumulative impact of these export authorizations could pose a threat to the public interest.”

“DOE is authorized, after opportunity for a hearing and for good cause shown, to take action as is necessary or appropriate should circumstances warrant it. Furthermore, DOE/FE will evaluate the cumulative impact of the instant authorization and any future authorizations for export authority when considering any subsequent application for such authority.”<sup>12</sup>

New LNG contracts from the Sabine Pass have been priced on a formula that rejects any linkage between US domestic gas prices and some notional “international”, “oil-linked” or “North Asian” price.

BG Group has contracted 3.5 mtpa of LNG for 20 years with the price indexed to Henry Hub domestic gas prices: Henry Hub price + 15% + tolling fee + shipping. This delivers a profitable return to LNG exporters while at the same time ensuring competitive gas prices for US industry.

## 3. Canada

Canada has been a large exporter of gas to other countries (Mexico and the United States) longer than Australia has been exporting gas. Canada requires export permits and export price tests to ensure that the domestic market is not disadvantaged in any way from the exporting of gas. Furthermore, the export market is served as a second priority to the domestic market in terms of reliability of supply.<sup>13</sup>

Western Canada has exported over half of its gas production to the US market over the past 25 years, while serving Canada’s domestic market on a first priority basis. Canada has yet to default on deliveries to its US gas customers.<sup>14</sup> This demonstrates that prioritising domestic supply can co-exist with supplying international customers.

## 4. An international price for gas?

A common misunderstanding is that, there is an international price for gas. In fact, prices vary considerably between different countries and regions and reflect local conditions, national resource endowments and government policies.

In most regions of the world, gas producers are price takers and not price setters. Distant regional gas markets should have very little if any impact on prices in the domestic market. All major gas producing regions have access to abundant low cost gas.

Recent US LNG contracts have been priced on a formula based on US domestic gas prices. This rejects any linkage between US domestic gas prices and some notional “international”, “oil-linked” or “North Asian” price.

Australia now has 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.

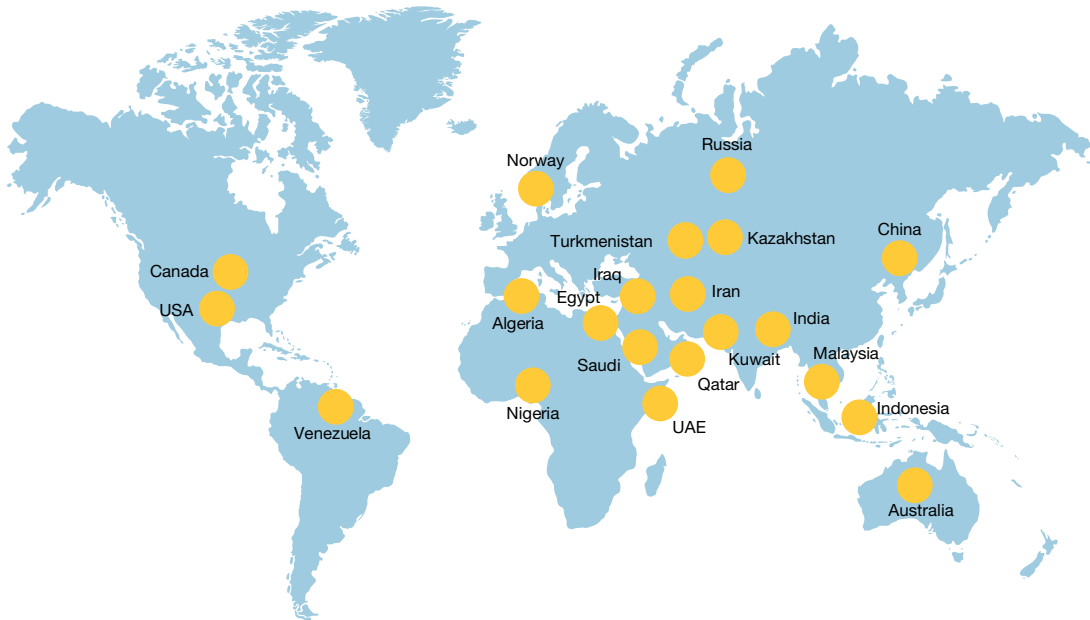
<sup>12</sup> US Energy Department, *Opinion and Order Conditionally Granting Long-Term Authorisation to Export Liquefied Natural Gas from Sabine Pass LNG Terminal to Non-Free Trade Agreement Nations*, DOE/FE Order No. 2961, 20 May 2011, pp.31-33.

<sup>13</sup> Innovative Energy Consulting, *Submission to the WA Strategic Energy Initiative 2030*, 2011.

<sup>14</sup> Ibid.

## Top 20 World Natural Gas Reserves

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References: BP Statistical Review 2009, PFC Energy "Full IOC Access" countries; Santos, Melbourne Mining Club presentation, February 2010.

## Top 20 Natural Gas Reserves with Full International Oil Company Access

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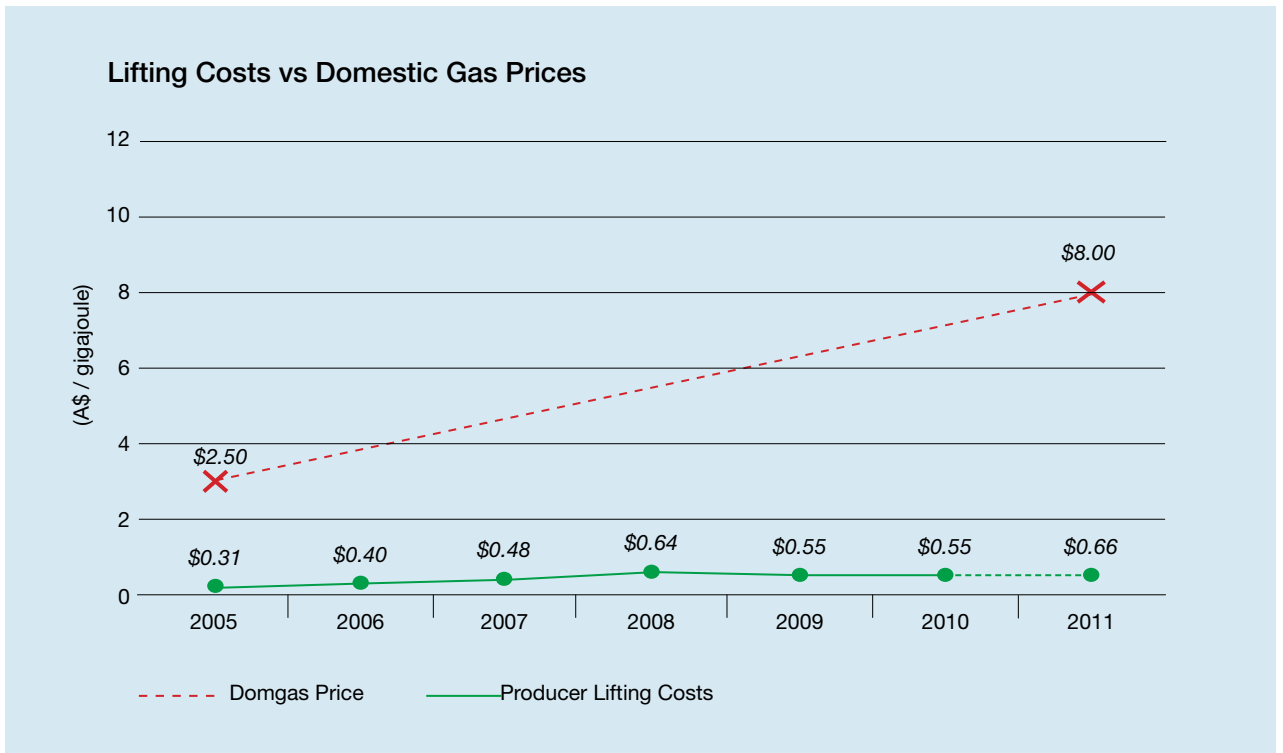
References: BP Statistical Review 2009, PFC Energy "Full IOC Access" countries; Santos, Melbourne Mining Club presentation, February 2010.

**Top 20 Natural Gas Reserves with Full International Oil Company Access and Exports Without Prioritising Local Supply**



References: BP Statistical Review 2009, PFC Energy "Full IOC Access" countries; Santos, Melbourne Mining Club presentation, February 2010.

**Chart: Woodside gas lifting costs vs. WA domestic gas prices**



Source: lifting costs from Woodside 2011 Annual Report, conversion factor 1 MMboe is approx. 6.1 GJ

## 5. 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>15</sup>

Over the same period, the North West Shelf Project has increased prices from around \$2.50 per gigajoule to around \$8/GJ. The North West Shelf Project is over 25 years old with sunk capital costs. The Government and consumers of WA supported the Project with take-or-pay purchases of highly priced gas in the early years of the Project.

## 6. The "era of cheap energy" will be over without government action

The Federal Minister for Resources, Energy and Tourism, has declared that "the era of cheap energy is over" and that Australia must adapt to higher energy prices.

The draft Energy White Paper surrenders Australia's energy competitiveness by advocating non-action by government. Industry and households should instead adjust to significantly higher prices:

"[I]t is essential to allow domestic gas markets to adjust to new dynamics rather than trying to constrain domestic prices through intervention... While recognising that current market conditions are particularly challenging for some large gas users, the Australian Government believes that policy intervention at the present time to force domestic gas outcomes is unwarranted."<sup>16</sup>

Australia benefits from LNG projects through the investment they generate and the royalties they generate. However, the massive increase in gas production in recent years has not delivered a better outcome for local industry. Industry is instead experiencing serious gas shortages and sharply higher gas prices.

Australia's situation contrasts with the United States where US domestic gas prices have fallen from \$14/GJ to as low as \$2/GJ, and where the US Government has taken a strategic approach to secure this advantage.

Unless Australia acts to secure domestic supply and prioritise the needs of local industry and households, the "era of cheap energy" will be over.

**"Rio casts doubt on Gillard's gas hopes",**  
*The Australian*, 16 April 2012

Julia Gillard's ambitions for a huge increase in gas use because of the carbon price have been dealt a blow as mining giant Rio Tinto warns that official estimates of Australia's gas reserves are overly optimistic and revealed it is struggling to secure supplies in Queensland.

Rio had also attacked the federal government for being too quick to accept that Australia's era of cheap energy has come to an end. "The acceptance that Australian industry will lose the competitive advantage it has derived from energy seems defeatist at worst and at best aspirational and not in the national interest," Rio says. "Australia needs to better understand which domestic energy costs are increasing, and to the extent they are, and why they are rising faster than in other countries."

The warnings, contained in a submission by Rio to the government's draft energy white paper, cast fresh doubt on the government's plans for gas to play a major role in replacing coal electricity generation as part of its Clean Energy Future plan to cut carbon emissions.

<sup>15</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.

<sup>16</sup> Draft Energy White Paper, p.149 and 155.



# Impact on Australia's climate change response

## Key Points

- Natural gas is the only conventional energy source that can underpin Australia's transition to a low carbon economy during the next 20 years.
- Using natural gas to fuel local industry and power generation is by far the most greenhouse- and energy-efficient use of Australia's clean energy resources.
- At current prices, gas is no longer competitive with coal for baseload power and major resource processing. A \$60-90 per tonne carbon cost would be needed.
- The carbon tax will have little impact in shifting Australia's fuel mix from gas to coal and in reducing greenhouse emissions. It will only drive up energy prices.

## 1. Benefits of domestic gas supply

Natural gas is the only conventional energy source that can underpin Australia's transition to a low carbon economy during the next 20 years. Natural gas produces less than half the greenhouse emissions compared to coal and uses proven, readily available technology.

Combined cycle gas-fired plants and gas-fired cogeneration plants using natural gas to fuel local industry and power generation is by far the most greenhouse - and energy-efficient use of Australia'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.

Table: Carnegie Mellon study (2007)

### Lifecycle emissions (lb CO<sub>2</sub>-e per megawatt hour)

	DomGas	LNG	Coal
Midpoint	1250	1600	2100
Upper Band	1600	2400	2550

Table: DomGas Alliance lifecycle study (2009)

### For every 100 GJ of energy in the supply chain:

	Energy Delivered	Energy Consumed	Total	Energy efficiency
DomGas	92.3 GJ	7.4 GJ	100 GJ	92.3 %
LNG	73.7 GJ	26.3 GJ	100 GJ	73.7 %

### Lifecycle greenhouse emissions for:

1 GJ LNG	67 kg CO <sub>2</sub> -eq
1 GJ domestic gas	56 kg CO <sub>2</sub> -eq

1 GJ of LNG generates almost 20% more greenhouse emissions over its lifecycle than domestic pipeline gas.

## Western Australia – Recent coal-fired developments

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- Bluewater 3 and 4 new coal-fired power stations (environmental approval granted)
- Coolimba new coal-fired power station (environmental approval granted)
- Muja A & B coal-fired power station refurbishment
- Independent Operator receives 377 megawatts in proposals for new electricity generation - not one megawatt of this is gas

## 2. Natural gas is no longer competitive with coal

At current prices, natural gas no longer competitive with coal for baseload power and major resource processing. This makes coal a far more economic option.

In Western Australia, the gas shortage is forcing the State to build new coal-fired power stations at a time when the rest of the world is switching to cleaner energy. This shift from clean natural gas to coal could well be the single biggest source of greenhouse emissions growth in the State over the next 20 years.

In Eastern Australia, power generators are struggling to secure long term gas supply contracts that could underpin new gas-fired investment despite the significant expansion in onshore gas production.

**“Shortage of gas may hit power producers”**, *The Australian*, 18 April 2012 (extract)

Electricity generators have revealed they are having trouble finding long-term gas supplies at any price, adding to doubts about the government’s ambitions to use gas as a “transitional fuel” to a low-carbon economy.

The National Generators Forum fears resource owners could be trying to “warehouse” their reserves for lucrative future export markets instead of offering gas to the domestic market, saying some of its members have been unable to lock in long-term supply contracts.

“These export markets may not proceed for many decades into the future, resulting in a scarcity of supply,” the group says in a submission to the government’s draft energy white paper.

“This is a concern as warehousing of gas supplies from the domestic market could limit the ability of the sector to utilise gas-fired generators to reduce carbon emissions,” says the submission, obtained by *The Australian*.

The alert comes after mining giant Rio Tinto warned that the official estimates of Australia’s gas reserves are overly optimistic, and said it was struggling to secure supplies in Queensland for 2015 and beyond.

<sup>17</sup> Draft Energy White Paper, p.151.

<sup>18</sup> Paul Balfe, *The Future for Gas in South East Australia*, presentation to the Australian Institute of Energy, ACIL Tasman, 27 October 2011; Daniel Magasanik, *Perspectives on the Eastern Australia Gas Industry to 2020*, Intelligent Energy Systems, presentation to the Australian Institute of Energy, 27 October 2011.

### 3. This is unlikely to change under a carbon tax

In introducing the carbon tax, the Federal Government has cited the role that natural gas must play as the transition fuel to a lower carbon economy. The Government also projects a significant expansion in gas-fired generation to 44% by 2050 “driven by the implementation of a carbon price”.<sup>17</sup>

This is unlikely to occur without policies to ensure domestic gas supply. At current gas prices, a \$60-90 per tonne carbon cost would be required to make gas competitive with coal for baseload power generation.

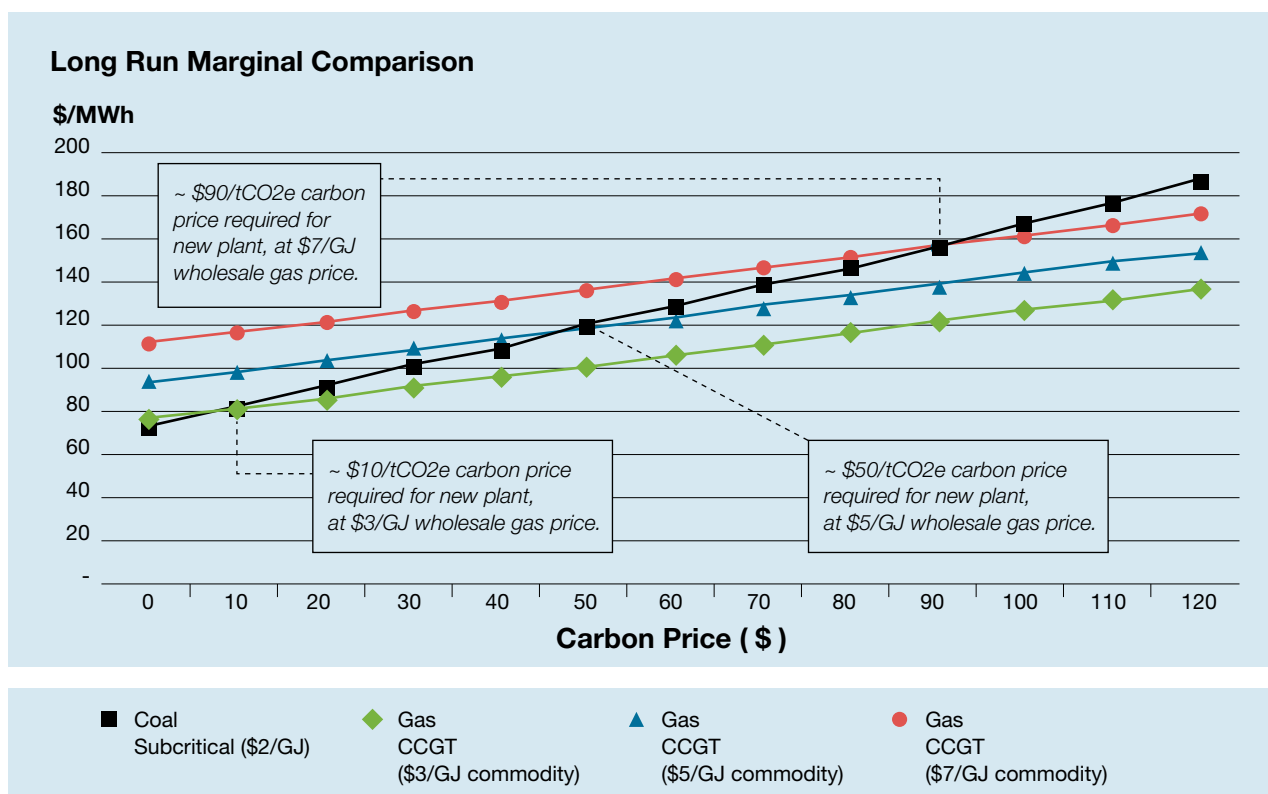
A 2009 DomGas Alliance study concluded that a \$90 per tonne carbon tax would be required to make natural gas competitive with coal at \$7/GJ wholesale gas prices. Current prices have been \$8-9/GJ.

Recent studies by ACIL Tasman and Daniel Magasanik similarly concluded:

- the growth in LNG exports will lead to a rise in domestic gas prices;
- this will impact the move from coal to gas by making domestic gas power plants less competitive with coal-fired plants;
- the uptake of gas fired power to 2030 will be half that forecast by the AEMO;
- at \$6 gas price, a carbon price of \$60-65 a tonne is needed for gas to be competitive with coal;
- the Queensland LNG projects will not assist Australia to decrease carbon intensity, even if they may have that effect in the importing country.<sup>18</sup>

The carbon tax will have little impact in shifting Australia’s fuel mix from gas to coal and in reducing greenhouse emissions. It will only drive up energy prices.

**Chart: Competitiveness of \$7 / GJ gas vs. \$2 / GJ coal (2009 DomGas Alliance Study)**



Abbreviations: • CCGT: combined cycle gas turbine • tCO2e: tonne of CO2 equivalent • MWh – megawatt hours  
 • kW: kilowatt • WACC: weighted average cost of capital

# The case for a National Reservation Policy

## Key Points

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- Australia should implement a national reservation policy that would require major LNG projects to set aside 15% of gas production for local industry and households.
- Domestic gas reservation has worked in Western Australia. The Wheatstone Project has committed to supplying domestic gas equivalent to 15% of LNG production.
- Most of Western Australia's gas is however located in Commonwealth waters where no obligations apply.
- While the bulk of East Coast gas resources are located onshore, there are potential flow-on impacts from an integrated market. NSW for example depends on interstate supply for 98% of its gas.
- The Queensland policy to set aside potential fields for future domestic supply has failed. No gas field has been set aside to date. Even if one was identified, it could take up to 7 years before gas might flow.
- Gas producers could be accorded sufficient flexibility under a national reservation policy as to how they meet domestic supply obligations, e.g. through gas swaps or trading arrangements.
- A national reservation policy will not discourage investment or increase sovereign risk. Australia is the only country in the world that allows unrestricted exports of natural gas.

## 1. Domestic gas reservation has worked in Western Australia

Domestic gas reservation has been a feature of the WA gas industry since the 1970's. The North West Shelf Project domestic supply commitments delivered stable energy supply underpinning economic growth, investment and employment in the State for over 25 years.

The 2003 Gorgon State Agreement provides for a domestic reservation commitment of 2000 petajoules (2 Tcf) and at least 300 TJ/d of gas.<sup>19</sup> The Gorgon partners have begun contracting gas to domestic customers pursuant to the domestic supply obligations.

In 2006, the Carpenter State Government implemented a 15% domestic gas reservation policy. The purpose of the policy is to ensure secure, affordable domestic gas supply to meet WA's long term energy needs and to sustain economic growth, development and value-adding investment.<sup>20</sup>

The policy was established on the following premises:

- Based on a realistic growth rate scenario, aggregate domestic gas demand to 2055 would total 32 Tcf.<sup>21</sup>
- Existing gas reservations will only be sufficient to meet the State's needs for approximately 10 years.<sup>22</sup>
- WA's forecast gas demand can only be satisfied if the State has access to a share of the reserves that have been identified as underpinning existing or potential LNG export projects.<sup>23</sup>
- Should the majority of the State's gas resources be committed to long term contracts for overseas buyers in the next few years, there are serious concerns that insufficient gas will be available for future domestic use.<sup>24</sup>
- Domestic market obligations are a common feature of many other oil and gas exporting nations.<sup>25</sup>

The policy has been affirmed by the Barnett Government. The State is now working to strengthen the policy, while providing sufficient flexibility to LNG producers on how they meet domestic supply commitments.

### **1.1 Without reservation, LNG projects would not develop adequate domestic supply**

Reservation obligations such as the original North West Shelf State Agreement, the Gorgon State Agreement and the 15% reservation policy, have delivered significant economic benefits.

The importance of domestic gas reservation was examined by a WA Parliamentary Inquiry. Following detailed evidence from gas producers, end users and government agencies, the Committee found that:

“The Domestic Gas Reservation Policy is an essential policy instrument for ensuring that an appropriate level of gas is supplied into the local market to achieve reasonable price outcomes. This instrument should be part of a suite of policy responses, the primary aim of which should be to improve the overall level of liquidity, competition and transparency in the Western Australian domestic gas market.”<sup>26</sup>

Importantly, the Committee concluded that:

“In the absence of a gas reservation policy, it is unlikely that LNG producers would develop adequate domestic gas processing facilities.”<sup>27</sup>

This conclusion was supported by LNG producers acknowledging that it was domestic supply commitments and not

market signals from significantly higher domestic gas prices that ensured domestic supply from Gorgon:

“Whilst there has been evidence that these prices have generated a substantial supply response from the market (Devil Creek and Macedon), over 40% of the new domgas capacity now being built is directly attributable to commitments made under a state agreement. Appearing before the Committee on behalf of the Gorgon Domgas sellers, Mr Chris Sorensen confirmed that the Gorgon Project’s domgas plant was not built in response to market signals: ‘It was not our decision; it was a state obligation.’ The Gorgon Domgas plant will play a critical role in alleviating current capacity constraints (if demand observes historic trends) and offers evidence that government intervention can occur without generating adverse market outcomes.”<sup>28</sup>

“It is not evident that LNG producers would, of their own accord, commit to a domestic gas project in the absence of some form of reservation obligation. BP, in another example, has averted a reservation obligation by having gas from its Ilo field processed into LNG by the Gorgon Joint Venture. Given the current level of concentration in the upstream sector, reservation requirements are needed to expedite the diversity of supply now required to reduce the inordinate advantages enjoyed by incumbent producers in the marketplace.”<sup>29</sup>

<sup>19</sup> Barrow Island Act 2003 (WA), Schedule 1, clause 17.

<sup>20</sup> Department of Premier and Cabinet, WA Government Policy on Securing Domestic Gas Supplies: Consultation Paper, October 2006 (“the Policy”).

<sup>21</sup> Equivalent to around 15% of forecast ultimately recoverable gas reserves of approximately 200 Tcf: 2006 Policy, p.3.

<sup>22</sup> 2006 Policy, p.4.

<sup>23</sup> Department of Industry & Resources, WA Government Policy on Securing Domestic Gas Supplies: Consultation Paper, February 2006, p.8.

<sup>24</sup> 2006 Policy, p.3.

<sup>25</sup> 2006 Policy, p.4.

<sup>26</sup> Economics & Industry Standing Committee, *Inquiry into Domestic Gas Prices*, March 2011, Finding 19 (“Domestic Gas Inquiry Report”).

<sup>27</sup> Domestic Gas Inquiry Report, Finding 20.

<sup>28</sup> Domestic Gas Inquiry Report, para.303.

<sup>29</sup> Domestic Gas Inquiry Report, para.304.

The expectation that the “market will sort itself out” is therefore unfounded. As gas producers have acknowledged, market signals alone would not ensure adequate supply to the domestic market. This makes domestic gas obligations an essential policy instrument to ensure energy security.

### **1.2 The Wheatstone Project demonstrates that the policy works**

The Wheatstone Project demonstrates the effectiveness of the domestic reservation policy in securing supply. It also disproves claims that the policy has in any way discouraged major LNG developments.

As part of the Project, Chevron and its partners have committed to build a domestic gas processing plant with capacity and production equivalent to 15 per cent of LNG sales.

The foundation phase of the Project will include two LNG trains with 8.9 million tonne per annum (mtpa) capacity, which would equate to around 187 terajoules per day (TJ/d) of domestic gas. First domestic gas supply is targeted for 2016 to coincide with first LNG production.

Importantly domestic gas supply will increase over time to around 500 TJ/d with completion of the full 25 mtpa LNG export project. For local industry, this means energy certainty over the 25+ year life of the Project.

## **2. Why national domestic supply obligations are needed**

### **2.1 Western Australia**

While the WA domestic reservation policy has proven to be effective, the State’s ability to secure domestic supply is limited. The bulk of gas resources are located offshore in Commonwealth waters regulated by the Federal Government.

Gas fields ideally suited for domestic use (such as West Tryal Rocks) are also being rolled into increasingly ambitious LNG

projects and warehoused under retention leases administered by the Federal Government. There is no certainty that these resources would ever be made available to supply local industry and households.

In the absence of Commonwealth domestic supply obligations, gas producers can conduct all processing offshore through floating LNG plants or transport gas to Darwin without supplying the Australian market. This will be the case with the Prelude and Ichthys LNG projects.

The WA Parliamentary Committee found that both Prelude and Ichthys were prepared to negotiate domestic supply commitments if required by the Commonwealth. The projects therefore represent a significant lost opportunity for Australian energy users and manufacturing in the absence of Federal Government action:

“Inpex advised the Committee that it had been prepared to negotiate an outcome surrounding the Reservation Policy and that, ‘... it was not a deal breaker at all in our consideration.’”<sup>30</sup>

“In a similar vein, whilst Shell has not yet factored in a reservation commitment for its Prelude floating LNG project, it did indicate to the Committee that it would be prepared to enter discussions on the topic if circumstances warrant it.”<sup>31</sup>

The need for Commonwealth domestic supply obligations is made even more urgent by projections that WA faces a serious gas shortfall with the expected decline in domestic supply from the North West Shelf Project. A Wood Mackenzie report, commissioned by the Project warned:

“Wood Mackenzie estimates the NWSP has provided approximately 570 TJ/d to the domestic market for both 2008 and estimated 2009. The consequences of NWSP not continuing those domestic gas sales in whole or part, would have a profound impact on the WA domestic gas situation.

<sup>30</sup> WA Parliamentary Inquiry, para. 309.

<sup>31</sup> WA Parliamentary Inquiry, para. 310.

If the NWSP didn't continue supplying at least 300-400 TJ/d of future domestic gas sales volumes, it is Wood Mackenzie view that the WA domestic gas market will be materially undersupplied and of risk to disruption in the medium term."<sup>32</sup>

Importantly, the Wood Mackenzie report projected that supply from prospective new projects would not be sufficient to meet WA's domestic gas needs:

"The additions of prospective supply from Apache's Devil Creek gas, Pluto domestic gas and Gorgon domestic gas, as well as Macedon's gas may likely not be enough to serve the WA domestic gas demands. No other material gas volume projects (i.e. providing +50 TJ/d for medium or long term contracts) are seen in the 5-8 year future."<sup>33</sup>

The original 2006 WA Government policy committed the State to reserving a minimum of 15 trillion cubic feet (Tcf) – equivalent to 15 per cent of the State's existing and potential LNG project reserves.<sup>34</sup> Realistic growth projections however indicate that up to 32 Tcf of gas should be reserved to meet the State's long term requirements.<sup>35</sup>

It is understood that expected future production from the North West Shelf Project has already been committed to rolling-over long term LNG contracts with customers in Japan and China. Commonwealth reservation obligations would ensure domestic supply from future LNG projects like Prelude or Ichthys is made available to meet the State's critical energy needs.

Such obligations would establish a clear expectation with major gas producers on the importance of energy security while minimising the opportunity for producers to play-off different States and levels of government when pursuing developments.

## 2.2 Eastern States

Despite a massive expansion in gas production, the East Coast is experiencing serious gas shortages and sharply rising prices. This is impacting investment, manufacturing and living costs.

Reports that BHP Billiton and ExxonMobil have started talks to export Bass Strait gas through Gladstone LNG should further raise concerns for SA, NSW, Victoria and Tasmania. Such a move would further tighten domestic gas markets in the East Coast and lead to a doubling of wholesale gas prices.<sup>36</sup>

While the bulk of East Coast gas resources are located onshore, a national approach is justified to address market failure:

- domestic gas supply transcends State boundaries with NSW for example dependent on interstate supply for 98% of its gas;
- the Queensland "field reservation" policy has proven ineffective in ensuring domestic supply.

### **Domestic supply transcends State boundaries**

Unlike the West coast, the East Coast market is an integrated gas supply market with geographical separation between sources of gas production and sources of gas consumption.

For example, NSW depends on interstate supply for 98% of its natural gas producing just 5 PJ of gas while consuming 128 PJ annually.<sup>37</sup> South Australia produces 132 PJ of gas but consumes 153 PJ annually.<sup>38</sup>

There are therefore strong parallels to management of the Murray River in that regulatory action or inaction by one State at the point of production can have significant flow-on impacts on other States dependent on domestic gas supply.

<sup>32</sup> Wood Mackenzie, Western Australia Gas Market Study, Final Report, 26 March 2010, p.48.

<sup>33</sup> Wood Mackenzie, Western Australia Gas Market Study, Final Report, 26 March 2010, p.48.

<sup>34</sup> Department of Premier and Cabinet, WA Government Policy on Securing Domestic Gas Supplies, October 2006.

<sup>35</sup> Department of Premier and Cabinet, WA Government Policy on Securing Domestic Gas Supplies, October 2006.

<sup>36</sup> The Australian, 'Price pressure rising as Bass gas exported', 16 November 2011.

<sup>37</sup> ABARE, Energy in Australia 2010, 2007-2008 statistics.

<sup>38</sup> ABARE, Energy in Australia 2010, 2007-2008 statistics.

### **The Queensland field reservation policy has proven to be ineffective**

In 2009, energy users alerted the Queensland Government to the risk of sharply rising gas prices and domestic gas shortages from LNG exports. Energy users urged the State to implement a 15% reservation policy similar to the WA policy. The Queensland Government instead introduced a policy “to set aside future gas fields for future domestic supply if needed”.

This policy has proven to be ineffective and to date no gas field has been set aside by the Queensland Government despite the worsening domestic gas shortage. Even if the policy was activated now and a suitable domestic gas field identified, it could take up to 7 years before the field could be developed and gas begins to flow to the domestic market.

There is a real risk for Queensland and other East Coast States that once the ramp-up phase of the Gladstone LNG projects is complete, most would be locked up in 20-25 year LNG contracts. The fact that Queensland gas producers are reluctant to commit to long-term domestic supply contracts is clear evidence of their priorities.

## **3. How a national reservation policy could work**

### **3.1 An unconditional 15% obligation**

A strong, transparent mechanism to implement reservation obligations would balance the needs of gas producers to deliver an acceptable return to shareholders, and the needs of manufacturers to manage energy costs to compete in international markets and support the Australian economy.

Where offshore gas resources are administered by the Commonwealth, domestic reservation obligations could be easily implemented as a condition in exploration permits, retention leases or production licences under an amended *Commonwealth Offshore Petroleum and Greenhouse Gas Storage Act 2006*.

For onshore gas resources, domestic supply could be mandated through Commonwealth legislation.

Reservation commitments should be made unconditional and enforced as part of producers’ licence to operate in Australia.

### **3.2 Flexibility through gas swaps and trading arrangements**

Producers should however be given sufficient flexibility in how they would meet their domestic supply obligations.

This could be achieved through gas swaps and trading mechanisms which allow producers to, for example, meet commitments from outside the project or outside the field.

Such arrangements would be eminently workable in Western Australia where the gas industry is characterised by large, discrete projects. They would be especially practicable on the East Coast where gas projects, producers, States and end customers are linked by the East Coast gas pipeline network.

Any trading arrangement should support the following principles:

- It should ensure timely monetisation and supply – it should not allow producers to indefinitely delay domestic supply through commitment shifting;
- It should be a transparent mechanism; and
- It should deliver the same volume of gas.

The following elements could be incorporated into a trading arrangement.

#### **Obligation should attach to the company, not the Joint Venture**

This would allow individual companies to swap and trade commitments both within the company (from outside the project) or with third parties.

Given the level of concentration in the upstream market across different projects,



it would be practical for individual companies to trade within themselves or between themselves.

There are sufficient gas reserves in the Carnarvon Basin from existing projects to offset obligations from Browse or Prelude. A 15% domestic commitment on Browse, equating to just over 5 Tcf, could for example be supplied from the expanded Gorgon Project (50 Tcf).

#### **Obligation should apply to production and acreage**

The 15% obligation should apply to both production and acreage / reserves. This would ensure timely and economic delivery of domestic supply as opposed to domestic gas being relegated to the last 15% (and most expensive) reserves of the field.

This would also ensure that the overall 15% commitment is maintained as new discoveries are made and new fields are added to an existing LNG project. This would avoid the situation of the Gorgon Project where reserves have significantly expanded from the original 40 Tcf to now 50 Tcf with no increase in the original domestic supply commitment.

#### **Banking arrangements**

Where it can be objectively proven that domestic demand is not sufficient to meet delivery of the full 15% production commitment, producers could be allowed to “bank” any surplus for future delivery.

This supply should be delivered within 5 years, or at the very least when domestic demand is sufficient to meet supply volumes.

#### **Ring-fencing of existing or prospective domgas fields**

All existing fields and projects targeted for domestic gas production, including field extension and acreage exploration potential, should be ring-fenced from any trading arrangement.

This would prevent producers from “double counting” domestic supply by shifting commitments to fields already targeted for domestic gas production.

#### **“In kind” domgas supply and pricing mechanism**

Additional flexibility might be accorded to producers through “in kind” arrangements. These could include:

- investing in new domgas only unconventional gas developments;
- investing in domgas-targeted exploration;
- investing in new gas storage infrastructure; and
- providing third party access to gas gathering and processing infrastructure;

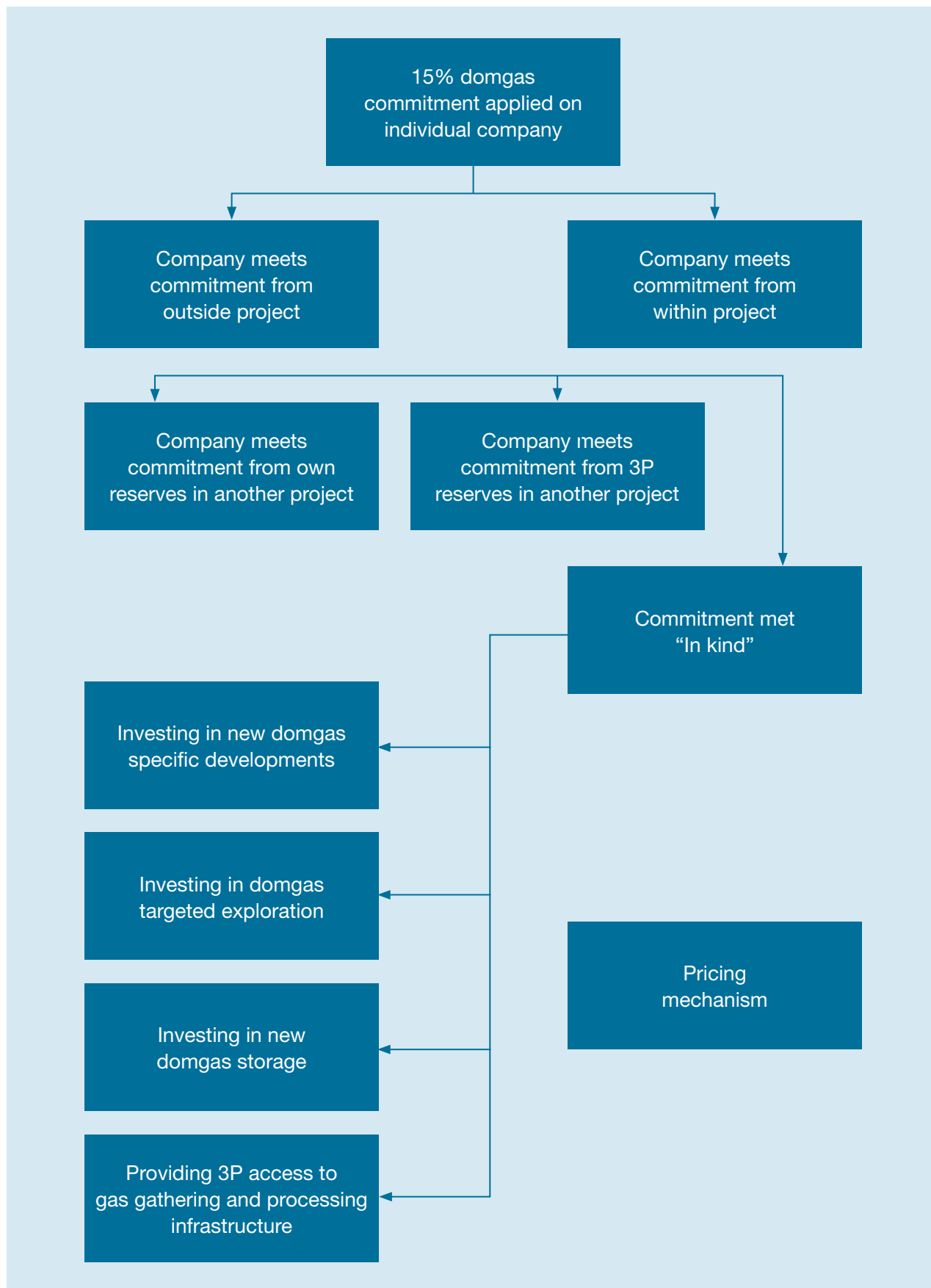
A pricing mechanism would need to be applied to price “in kind” the volume of domgas that would otherwise be supplied to the market under the reservation commitment.

Any price would need to recognise the fact that Australia is foregoing the immediate benefits of domestic supply for a longer term and potentially uncertain benefit (such as prospective domgas exploration or shale gas development).

#### **Strong financial penalties**

Strong financial penalties should be applied to enforce domestic gas supply obligations. For offshore resources administered under the *Commonwealth Offshore Petroleum and Greenhouse Gas Storage Act 2006*, these could be incorporated through permit or licensing arrangements.

**Chart: Reservation Obligation Trading Arrangements**



#### 4. A national reservation policy will not discourage investment or increase sovereign risk

Australia is the *only* country in the world that allows unrestricted exports of natural gas. A national reservation policy will not discourage investment or increase sovereign risk.

Western Australia's 15% reservation policy attracted intense criticism by LNG producers, APPEA and the then Federal Minister for Resources, Energy and Tourism when it was announced in 2006.

These concerns have been proven unfounded. The sky did not fall down and WA instead saw a massive expansion in gas exploration and investment. Major projects underway or already completed include Wheatstone, Gorgon, Devil Creek, Macedon and Pluto. Exploration expenditure also significantly increased following the announcement of the reservation policy in 2006.

The WA Parliamentary Committee found no evidence to support claims that the State's reservation policy deters investment:

"The Committee is not persuaded by producer arguments that reservation policies will deter ongoing investment in the LNG industry. In support of this point, the Committee notes the Fraser Institute's 2010 survey of international petroleum industry executives. In this latest survey, which measures the extent of barriers to investment, Western Australia has moved into the 'most attractive' quintile of international jurisdictions. Notwithstanding the current regulatory climate, Western Australia has improved 35 places from 2009 to be 21st out 133 destinations."<sup>39</sup>

Importantly, the Committee dismissed claims that the WA reservation was the reason for Inpex's decision to shift its Ichthys LNG processing plant from WA to Darwin:

"Importantly, Inpex confirmed that its decision to locate its Ichthys LNG processing plant in Darwin was not due to the Reservation Policy, but to a failure to gain approval to use the Maret Islands as the company's production site. Inpex advised the Committee that it had been prepared to negotiate an outcome surrounding the Reservation Policy and that, '...it was not a deal breaker at all in our consideration.'<sup>40</sup>

#### Table: The claims

##### ***We'll all be ruined, APPEA claims***

(2006 submission to the WA Domestic Gas Reservation Policy)

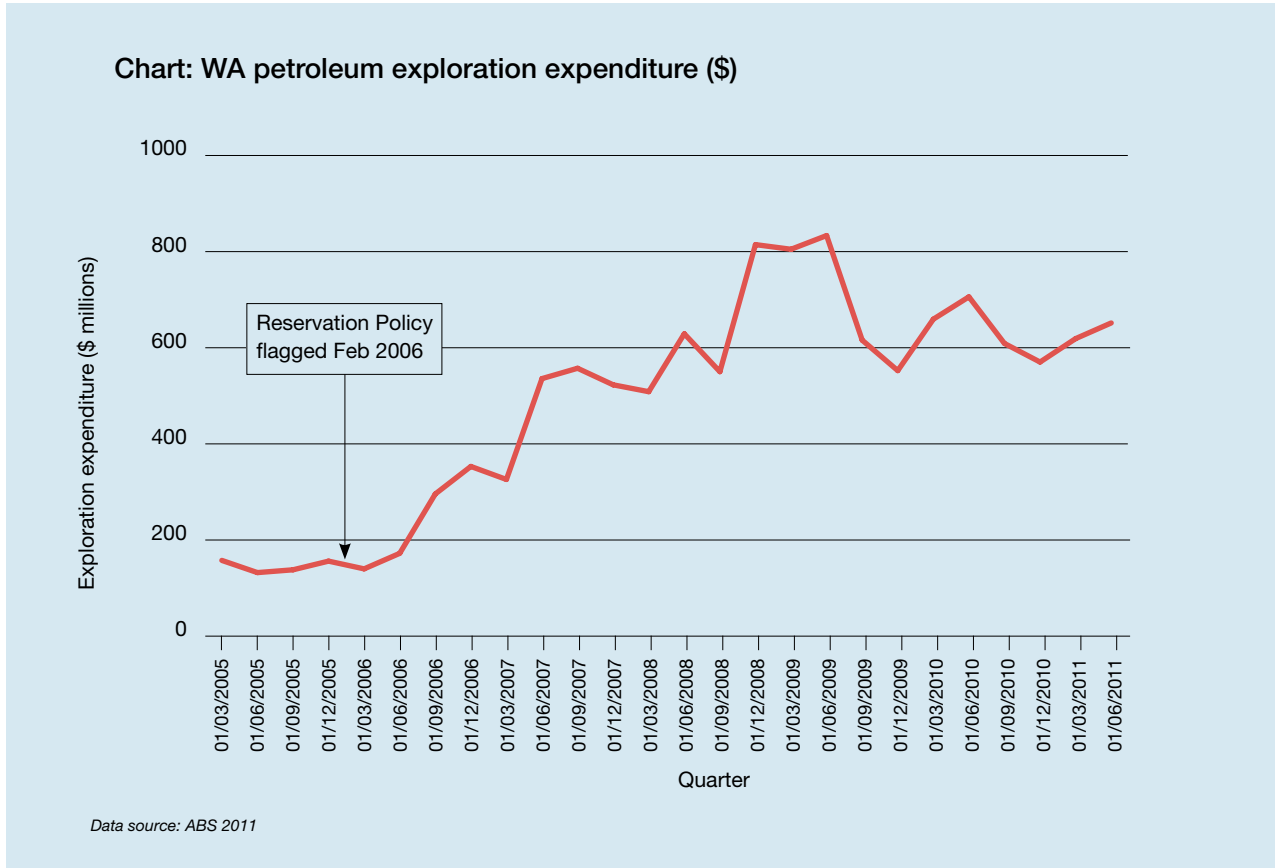
"A Domestic Gas Reservation policy would, if adopted:

- reduce the international competitiveness (for sales and for capital) of one of Australia's largest and most rapidly growing export sectors;
- potentially render some LNG projects uneconomic and unable to be developed for the domestic market without very large increases in gas prices;
- be economically inefficient and divert gas from its highest value use;
- treat LNG projects inequitably and disadvantage dedicated domestic gas producers;
- impact on the viability of WA's existing domestic gas suppliers;
- act as a form of taxation or appropriation of property without just compensation, thereby increasing sovereign risk and reducing Western Australia's attractiveness for petroleum investment;
- distort the WA gas market by creating a large gas overhang which could result in large increments in gas supply being introduced into the WA market at subsidised prices...

<sup>39</sup> WA Parliamentary Inquiry, para. 306.

<sup>40</sup> WA Parliamentary Inquiry, para. 309.

**Chart: The reality**



**5. Domestic reservation obligations do not mean subsidised prices**

Domestic reservation obligations will not require producers to sell at a loss and do not equate to subsidised prices for local industry and households. Australia now has the highest domestic gas prices of any major gas producing country. It remains a highly profitable market for international oil and gas companies.

In fact, the WA Parliamentary Inquiry into Domestic Gas Prices 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).

**6. Reservation obligations would have a neutral or positive impact on the Budget bottom line**

Given producers will continue to pay both the Petroleum Resource Rent Tax and company tax for domestic gas, Commonwealth reservation obligations would have little cost to the Federal Budget.

In fact, the impact could be revenue positive given domestic supply will continue to sustain downstream manufacturing industries and employees, all of whom contribute both company and income taxes. Without domestic supply, these revenues would be lost with the additional cost to the Budget of unemployment assistance.

## **7. Australia's LNG industry was underpinned by significant financial support from government and gas users**

Arguments by LNG producers for non-action by Government ignore the significant financial support provided by the WA Government, the Commonwealth and gas users to support development of the North West Shelf Project and Australia's LNG industry.

The WA Government supported the North West Shelf 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 and could not use. Significant support was also provided by the Commonwealth for over 20 years in the form of subsidies - by foregoing royalties on condensate.

It was on the back of the 1980 take or pay contracts and the guaranteed cash flows that enabled Woodside to secure project financing for the original project, and the subsequent LNG export phase.

It is incorrect to assert that the North West Shelf Project delivered "low gas prices" to end users.<sup>41</sup> In fact, the domestic supply contracts were high priced contracts and did not result in "low" or "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, and one-third was priced against imported oil. This high pricing structure continued even after oil prices fell dramatically after 1985.

During the first decade or more of the Project, the wellhead netback price for LNG exports was low compared to the netback price received from the domestic WA market. Domestic customers therefore paid a much higher price for wellhead gas than did the export customers. It is only now that LNG prices are higher than gas producers argue there should be a convergence between LNG and domestic prices.<sup>42</sup>

<sup>41</sup> Draft Energy White Paper, p.152.

<sup>42</sup> Innovative Energy Consulting, *Submission to the WA Strategic Energy Initiative 2030*, 2011.

# Retention Leases

## Key Points

- Offshore retention leases should not be used to indefinitely park gas reserves for LNG when those resources could economically supply the domestic market.
- The Federal Government however appears to be prioritising LNG over domestic supply in managing retention leases.
- This reinforces the need for national reservation obligations to ensure that some gas is made available to the local market.

## 1. Background

Major producers appear to be parking commercially viable gas resources for future LNG developments or are withholding supply to leverage domestic gas prices above competitive levels.

Under the *Commonwealth Offshore Petroleum and Greenhouse Gas Storage Act 2006*, a retention lease must be converted to a production licence when a reserve is commercial.

The Act does not provide an exception for reserves – that might otherwise supply the domestic market – to be warehoused for the purpose that they might at some time in the future contribute to LNG exports.

In 2007, the Commonwealth – State Ministerial Joint Working Group on Natural Gas Supply recommended stringent enforcement of retention leases to promote domestic supply.

## 2. The Federal Government is prioritising LNG over domestic supply

It is disappointing that the Federal Government now appears to be prioritising LNG exports over domestic supply in managing retention leases. Under this approach, gas resources are being warehoused for future LNG exports, and not developed for the immediate needs of the Australian market, so long as they are

considered “essential to meeting contractual commitments and the overall viability of the greater project”.<sup>43</sup>

This approach is flagged by draft Energy White Paper:

“In addition, to better reflect the realities of highly capital-intensive LNG projects and the need to provide certainty of gas supply over long project timeframes (30-plus years), further consultation with industry will take place on potential changes around a ‘project title’ concept, balancing the need for reserve certainty with other pressures, including promoting commercial domestic gas supply.”<sup>44</sup>

While the Federal Government has affirmed a stringent approach to retention leases, gas users are not aware of any retention leases that have been revoked in recent years on the basis that resources could be developed for the domestic market.

The WA Parliamentary Committee into Domestic Gas Prices found:

“The current process underpinning the application for and renewal of retention leases lacks sufficient rigour and enables the stockpiling of gas reserves by incumbent producers. These reserves may include fields that are suitable for the development of domestic supplies.”<sup>45</sup>

<sup>43</sup> Department of Resources, Energy and Tourism; *Review of Policy Relating to the Grant and Renewal of Retention Leases – Options Paper*; June 2009; Draft Recommendation 5.8.

<sup>44</sup> Draft Energy White Paper, Chapter 5, pg.95, available at: <http://www.ret.gov.au/energy/Documents/ewp/draft-ewp-2011/Draft-EWP-chap5.pdf>

<sup>45</sup> WA Parliamentary Inquiry, Finding 26.

The Alliance strongly supports the Committee's recommendation that ensuring supply of gas to the domestic market be included as a priority in the process of renewing or issuing a retention lease.<sup>46</sup>

The Federal Government's approach on retention leases reinforces the need for Commonwealth reservation obligations. This would ensure that domestic gas fields rolled-into and warehoused for LNG projects will, as part of the larger project, deliver some domestic supply to Australian industry and households.

### 3. West Tryal Rocks

The West Tryal Rocks field is an example of a domestic gas field that has been diverted to LNG exports. The field was discovered 1973 and is located in shallow water and close to existing domestic gas infrastructure.

The field has attracted strong interest from prospective domestic gas producers. WA gas customers have also approached Chevron with offers to help underwrite development of the field through long term contracts.

The Joint Authority has however approved Chevron warehousing the resources for another 5 years on the basis that it is "uneconomic" for development. The Federal Government has justified this decision on the basis that the field can be "developed sequentially to maintain production and extend the economic life of the [Gorgon] project".<sup>47</sup> No timetable has been given as to when the field might be developed.

The renewal of the West Tryal Rocks retention leases, when those resources could be developed for the WA domestic market, appears in conflict with the provisions of the *Offshore Petroleum and Greenhouse Gas Storage Act 2006*. The Act provides no exemptions for LNG projects in determining whether or not resources are commercially viable.

<sup>46</sup> WA Parliamentary Inquiry, Recommendation 12.

<sup>47</sup> Minister for Resources, Energy and Tourism; 'Government Clears Final Hurdle for \$50 Billion Gorgon Go-Ahead', Media Statement, 1 September 2009.

#### **West Trial Rocks**

- **1973** – West Tryal Rocks field discovered by WAPET
- **2002** – Multiplex proposes to develop the field for domestic supply and offers to buy it from Chevron, Shell and ExxonMobil for \$70 million
- **2003** – Multiplex's challenge is rejected by Government and the retention lease rolled-over
- **2007** – Joint Working Group acknowledges significant rise in domestic gas prices which meant a substantial improvement in the prospects for developing stranded gas reserves
- **May 2008** – retention lease scheduled to expire. No announcement is made by the Federal Government for the next 16 months
- Chevron publicly reported to be targeting West Tryal Rocks for domestic gas development by discussing with potential customers and pursuing contracts for FEED studies
- Oswal Group proposes to buy all of any domestic gas produced for a proposed \$1.5 billion Burrup ammonia urea plant
- **Feb 2009** – Crystal Exploration challenges Chevron's right to the lease on the basis that it is commercial for domestic gas development
- **Sept 2009** – Federal Government announces it will renew West Tryal Rocks, together with six other gas fields, to be "developed sequentially to maintain production and extend the economic life of the [Gorgon] project"
- No timetable has been given as to when the field might be developed

# Gas Market Competition

## Key Points

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- Joint selling by major gas producers is the single biggest barrier to competition in WA and leads to higher gas prices.
- These same gas producers are prohibited from jointly selling in the United States, Canada, New Zealand and the European Union.
- The ACCC has intervened in the market to authorise joint selling by the North West Shelf and Gorgon producers. These authorisations expire at the end of 2015.

### 1. Joint selling is the single biggest barrier to competition

Joint selling by major gas producers is the single biggest barrier to competition in Western Australia and leads to higher gas prices.

The ACCC has repeatedly intervened in the market to allow the world's biggest oil and gas companies to combine together to set prices and contract terms when selling to local customers.

These same producers compete against each other when selling LNG to international customers. They are also prohibited from selling domestic gas jointly in the United States, Canada, New Zealand and the European Union.

As a result, the WA gas market is anti-competitive. Just two producer groups control almost 100% of the market and exercise immense market power. The same producers also control the bulk of new projects that could supply the WA gas market. This minimises the potential for gas-on-gas competition from new gas projects.

### 2. Joint selling must end in 2015 when ACCC authorisations expire

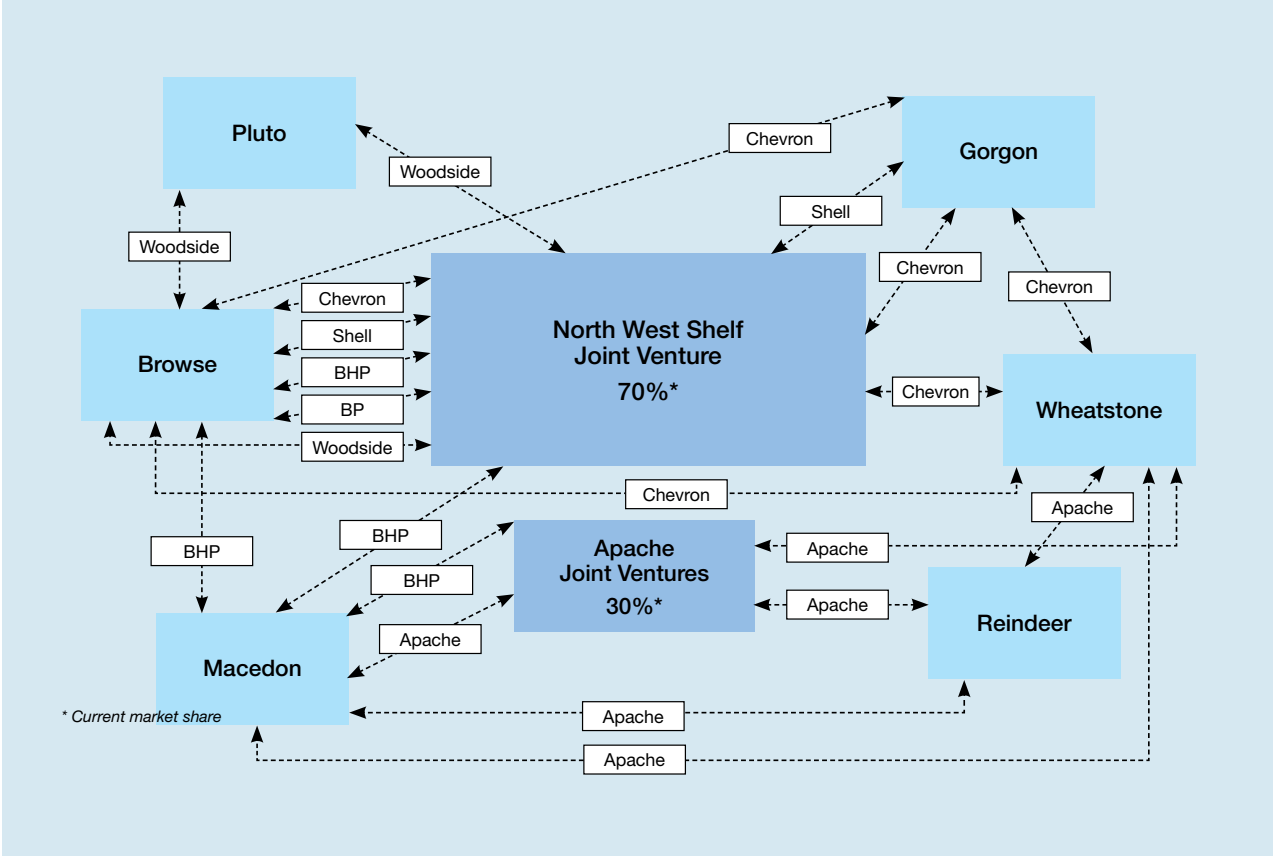
The WA domestic gas market has made significant progress in recent years to promote more short term gas trading, encourage more market participants and develop greater gas transport and storage capacity (see 2011 Domestic Gas Scorecard).

Initiatives such as the State Government's Gas Bulletin Board and the Gas Statement of Opportunities, and the expansion of the Mondarra gas storage facility by APA, will further improve transparency and market liquidity.

There is a strong expectation by energy users that joint selling will cease at the end of 2015 when ACCC authorisations for the North West Shelf Project and the Gorgon Project producers expire.



Chart: Joint selling and cross-ownership suppresses competition between projects



# 2011 Domestic Gas Scorecard

2011 Market	Status	2015 Vision
Gas brokers active in market	✓ Completed	Greater liquidity and transparency
New aggregators active in market	✓ Completed	More market participants
Short Term Trading and Gas Bulletin Board	✓ Underway	More short term gas trading
Gas Statement of Opportunities	✓ Underway	
DBP Stage 5B expansion	✓ Completed	Enhanced storage capacity
Mondarra storage expansion	✓ Underway	More storage options
Widening gas specification	✓ Completed	
Strengthening the 15% domestic reservation policy	✓ Underway	
New domgas projects	✓ Underway	
New LNG projects selling domgas	✓ Underway	Multiple sellers
Unconventional gas developments	✓ Underway	Direct competition between sellers
North West Shelf State Agreement – State to prioritise domgas supply over new LNG contracts 2010-2025	✗ Little progress	Greater diversity of supply
Offshore retention leases – greater stringency and transparency	✗ Little progress since 2007	
Separate selling of domgas by Gorgon and North West Shelf Projects	✗ ACCC authorisations expire 2015	

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