

Australian Workers' Union (AWU) Submission

# Inquiry into the Economic Implications of Floating Liquefied Natural Gas Operations

August 2013



## OVERVIEW

The huge boom in investment into natural resources has underpinned Australia's economic success over the past decade.

Much of this capital investment has been directed into Australia's large natural gas reserves. Western Australia has been a particular beneficiary of this investment expenditure. On any economic measure – from GDP contribution, investment of capital, employment, right through to taxation revenue it is clear that the Liquefied Natural Gas (LNG) boom has been absolutely central to Australia's economic performance since the turn of the century.

The prospect of Floating LNG (FLNG) technology becoming a primary mechanism of extraction of Australia's natural gas represents one of the greatest threats to Australia's economic security and prosperity. Put simply, FLNG is not in the direct economic or social interests of Australia or the owners of Australia's natural gas reserves – the Australian people.

Large oil and gas companies operate with the consent of the Australian people and thus should be expected to provide social returns in the form of increased employment, training, taxation and economic wealth from associated flow-on benefits. This implicit social contract stands to be broken; should the industry be allowed to exploit Australia's natural resources in a manner that provides the lowest possible return to the Australian economy and community.

The AWU agrees with the Western Australian Premier, Mr. Colin Barnett who has publicly stated, *"No other country in the world would allow its energy resources to be developed in offshore construction, loaded and sailed away."*

The overall outcome is clear – FLNG equates to:

- No local construction jobs.
- No local content.
- No local gas supply.
- Less economic activity.
- Lower taxation revenue

### **This submission will deal with the following:**

1. The economic benefits of LNG – past; present and projected.
2. The economic risks associated with FLNG.
3. Side effects of the boom – impact on manufacturing
4. Safety concerns associated with FLNG
5. The impact of FLNG on local gas supply.
6. Indigenous impacts of FLNG – James Price Point.

## 1. ECONOMIC BENEFITS OF LNG

### A. Present and past benefits

Australia and Western Australia's economy have benefitted greatly from the direct and indirect benefits of the natural resources boom.

Much of this benefit has flowed from the record investment in major LNG projects.

In 2011 LNG contributed 2% of Australia's GDP, with a value of roughly \$29 billion. This is set to grow as Australia moves from an investment phase into an export production phase.

The LNG industry's total economic contribution is projected to be around 3.5% of GDP by 2020 as production peaks along with prices.<sup>1</sup>

However, these benefits can only be fully realised if the LNG boom continues along its historic path of onshore processing and refining.

**FLNG will significantly reduce the size and scope of the economic benefits that flow from Australia's LNG boom** as it reduces employment, investment and overall aggregate demand.

#### Investment benefits

According to research commissioned by McKinsey resources, the LNG sector has seen the largest absolute growth of all resources in Australia, attracting investment over \$200 billion in the last decade. This represents higher levels of investment than the entire mining industry combined.<sup>2</sup>

The projects undertaken in recent years amount to some of the largest in the history of Australian private sector investment.

The scale of the projects, whilst creating complexities, offer significant benefits to Australia's economy through direct and indirect flow on benefits such as job creation, economic stimulus, taxation revenue and local content consumption.

Collectively, total investment in natural gas projects account for around 35.4% of all business investment. If all projected oil and gas investments are realised, they will comprise over 64%

<sup>1</sup> [http://www.deloitte.com/assets/Dcom-Australia/Local%20Assets/Documents/Services/Corporate%20Finance/Access%20Economics/Deloitte\\_Access\\_Economics\\_Advancing\\_Australia\\_June\\_2012.pdf](http://www.deloitte.com/assets/Dcom-Australia/Local%20Assets/Documents/Services/Corporate%20Finance/Access%20Economics/Deloitte_Access_Economics_Advancing_Australia_June_2012.pdf)

<sup>2</sup> [http://www.mckinsey.com/locations/australia/knowledge/pdf/extending\\_lng\\_boom.pdf](http://www.mckinsey.com/locations/australia/knowledge/pdf/extending_lng_boom.pdf)

of all committed investment. Securing this investment as onshore projects is absolutely critical to the economic future of WA and Australia.<sup>3</sup>

### Direct benefits

- **Jobs** – 100,000 jobs created annually since the beginning of the boom with a projected peak of 103,000 during the investment phase of the LNG boom.
- **Local Content** – While still below acceptable levels, businesses around Australia depend on this critical industry, which is spending about \$1000 every second on new projects.
- **Taxation** – In 2012 the industry paid \$8.8 billion in taxes and royalties.

Again, this investment spend is contingent on FLNG not being part of the extraction process.

### B. Projected future LNG investment

There are many large LNG projects on the drawing board, representing an investment exceeding \$180 billion.

Securing this investment in an onshore processing manner is of the utmost importance as it presents the largest net economic gain for the Australian economy.

The potential return to the Australian economy is clearly evidenced by the staggering economic gains demonstrated during the initial investment LNG boom.

### Major projects

Between 2009-2017 oil and gas projects presently in the investment pipeline will spend roughly \$210 billion with an average yearly spend – excluding ongoing capital expenditure – of \$23 billion.

Australia's gas output is expected to peak at \$46 billion in 2020 as investment, volumes and prices all peak together. This figure is expected to drop to \$41 billion in 2025.

Australia's GDP is projected to increase significantly as result of a thriving LNG sector. During the capital expenditure-intensive phase, GDP contribution of the LNG sector is estimated to peak at around 2.2.<sup>4</sup>

<sup>3</sup> [http://www.deloitte.com/assets/Dcom-Australia/Local%20Assets/Documents/Services/Corporate%20Finance/Access%20Economics/Deloitte\\_Access\\_Economics\\_Advancing\\_Australia\\_June\\_2012.pdf](http://www.deloitte.com/assets/Dcom-Australia/Local%20Assets/Documents/Services/Corporate%20Finance/Access%20Economics/Deloitte_Access_Economics_Advancing_Australia_June_2012.pdf)

<sup>4</sup> *ibid*

Western Australia will receive half of the projected economic output flowing from natural gas investment with an increase of \$135 billion in net present value terms.

The next phase of LNG investment – provided it is processed onshore – would provide the following

- 1.5% increased to GDP.
- 150,000 jobs annually.
- Tax revenues that would have the capacity to halve the present federal debt obligations.<sup>5</sup>

The contribution of oil and gas to Australia's economy can grow even bigger. It is projected that between 2011-2025, the sector will contribute \$420 billion in direct and indirect economic activity.

**Table i: The economic contribution of the oil and gas industry**

	NPV (2011-25)	2011	2020	2025
<b>Oil and gas</b>				
Value added (\$b)	420.0	28.3	64.7	60.2
Direct value added (\$b)	356.7	24.0	55.1	51.1
Indirect value added (\$b)	63.3	4.3	9.8	9.1
Direct value added, share of GDP (%)		1.7	2.9	2.3
Total value added, share of GDP (%)		2.0	3.5	2.7
<b>Exploration</b>				
Value added (\$b)	9.1	1.1	0.8	1.1
<b>Total</b>				
Value added (\$b)	429.1	29.4	65.5	61.2
Share of GDP (%)		2.1	3.5	2.8

Note: NPV uses a discount rate of 7%

Source: Deloitte Access Economics

## 2. ECONOMIC RISKS ASSOCIATED WITH FLNG

All of the above economic benefits are contingent on major LNG projects proceeding as onshore processing facilities, as per the initial phase of the boom.

<sup>5</sup> McKinseys

FLNG provides a direct threat to Australia's economy by removing:

- **Jobs (both direct and indirect)** – 100,000 direct jobs a year could be lost as major projects conclude and are replaced by FLNG facilities constructed in South Korea. Indirect job losses while difficult to quantify will be significant as aggregate demand drops across the economy, and supply chain demand is reduced.
- **Local content** – local manufacturing, engineering and services will lose millions in revenue, placing at risk thousands of jobs in these vital sectors. This local content will instead be offshored to South Korean shipyards and associated supply chains.
- **Economic activity** – downstream economic activity will be affected by lower aggregate demand, employment and consumption spending.

The above counter position of allowing FLNG exploitation is a poor outcome for Australia.

The primary benefits that would flow to the Australian community would be solely limited to royalties and taxation, which would still likely be far lower than the baseline onshore scenario described earlier in this paper.

The employment benefits of FLNG are extremely low as compared to the hundreds of thousands of construction jobs created in large LNG projects such as Wheatstone, Macedon and Pluto.

#### **A. The best case for employment on FLNG**

The proposed Shell Prelude project will create around 350 direct and 650 indirect jobs.

- The 350 direct jobs will be in production operations, general service operations, staff, management and technical personal.
- The 650 indirect jobs will be managerial, technical, support and logistics positions.
- Maintenance positions – While the facility will be brand new and will not need any heavy maintenance during the first decade, some maintenance jobs will be created during shutdowns to clean and flush out the LNG processing facilities. It is not expected that these jobs will be abundant during the initial phases of operation.

This level of job creation is not even remotely near the 100,000 plus jobs created annually in the LNG sector in Australia presently.

The James Price Point project alone was anticipated to provide as many as 14, 000 jobs annually during peak construction.



These jobs would be broken into the following:

- 6-8000 direct construction.
- 2-3000 transport logistics.
- 2000 fabrication jobs.
- 1000 support, IT admin professionals.

If compared on a project basis, this represents a net loss of thousands of direct and indirect jobs annually for the life of the project. This figure doesn't even begin to calculate the associated effects of lower aggregate demand and flow-on job losses.

It is clear that FLNG will equate to a net loss of employment of to the Australian economy measured in the tens of thousands. Whilst difficult to quantify, this new technology places at risk 100,000 jobs per year for perhaps the next decade as major onshore projects are replaced with FLNG extraction.

This is an unacceptable reduction in welfare and economic activity, particularly when considering it involves the utilisation of Australia's collective natural resource wealth.

## **B. Lost training opportunities**

It is possible that these **employment figures cited on FLNG will be far lower** than anticipated as the vessel becomes more efficient and automated.

Furthermore this calculation does not begin to address the issue as to whether such production operations jobs will be sourced locally or from overseas labour markets.

It can also be assumed that with this new and untested technology that there will be a considerable amount of overseas personnel from the development counties of France, South Korea, Singapore and the United States that will be required to assist with the daily operations and monitoring of the FLNG facilities performance of this new operation, thus requiring less local sourced labour from Australia.

Given that these jobs will represent new and untested skill sets that will require training, it may be tempting for gas companies to utilise foreign labour rather than train Australian domestic workers at a higher cost to the operator.

The lack of major onshore facility will significantly reduce – from an already low base – the capacity for young Australians to receive training and apprenticeships.

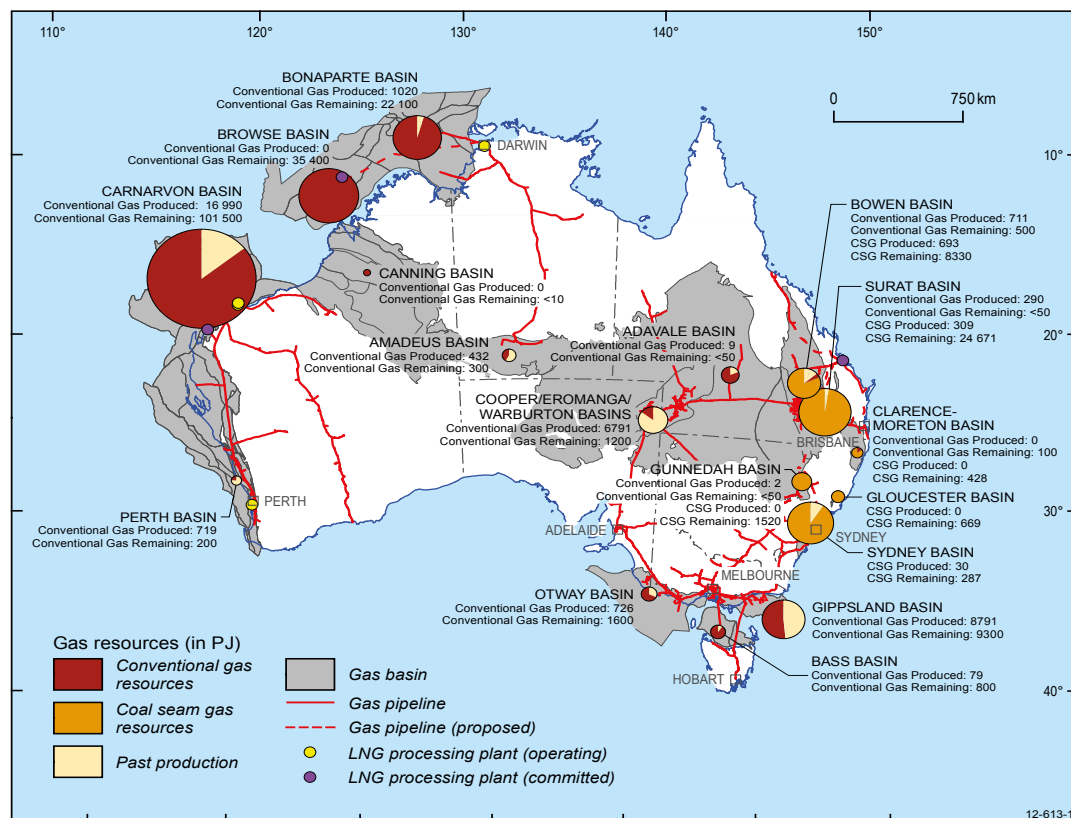
With youth unemployment already at roughly 12% nationally these are lost opportunities that cannot be foregone.

There has already been a scandalous level of investment in training opportunities both directly in major projects, but also in flow-on manufacturing sectors that have been denied access to tendering on major projects – **FLNG will once again compound an already existing issue.**

Allowing young people to miss out on valuable training opportunities and careers in trades will not only create intergenerational inequity, but it will also curtail Australia's ability to service it's domestic economy with the appropriate level of skilled workers – thereby increasing the already demonstrated over-reliance on temporary workers.

### C. Western Australian policy will influence national policy.

Most (around 92 per cent) of Australia's conventional gas resources are located in the Carnarvon, Browse and Bonaparte basins off the north-west coast.<sup>6</sup>



<sup>6</sup> [http://www.ga.gov.au/webtemp/image\\_cache/GA21116.pdf](http://www.ga.gov.au/webtemp/image_cache/GA21116.pdf)



Gas is Australia's third largest energy resource after coal and uranium.

This is unlikely to change in the period leading up to 2035.

Australia is projected to become the second largest exporter of LNG by 2020 and may overtake the top spot if all major projects are realised. This will depend on the amount of investment secured during the next decade in new LNG projects.

Western Australia is the market leader for natural gas in Australia and is home to most of Australia's accessible gas reserves.

As a result the policy positions adopted by the Western Australian government, in conjunction with the Federal government will severely impact on gas policy settings around the country.

It is vital that governments of all levels do not allow large gas players to extract gas in a manner that is solely at their benefit. This would amount to a betrayal of the Australian people as well as Australia's ongoing economic prosperity.

### **3. SIDE EFFECTS – THE IMPACT ON MANUFACTURING**

Notwithstanding the benefits highlighted above, too little of the boom in construction of major LNG projects has flowed into the manufacturing sector.

Since the GFC Australia has lost over 130,000 manufacturing jobs.

Australia's manufacturing sector has been caught by a record high dollar that has made exports highly uncompetitive, while allowing for import substitution particularly in base commodity manufactures.

The majority of Australia's recent currency inflation has been driven by the boom in resources, particularly in LNG.

Ordinarily it would be hoped that much of the reduced revenue resulting from export losses would be offset by increased demand for Australian made goods in major domestic resource projects.

The AWU has made numerous submissions federally calling for improved local content guidelines on major resource projects.

This submission does not intend to reiterate those concerns as they are on the public record.

However it goes without saying that **a move to FLNG will make a bad problem even worse.**

The inadequacies of local content usage by major project proponents notwithstanding, it is clear that a move towards FLNG by major oil and gas players will lead to almost no local content being used in Australian gas projects.

Shell has made it clear it has no intention of building FLNG rigs in Australia, nor will it use Australian local content in the construction process. This is despite considerable investment from WA State Governments and the private sector into joint user facilities such as the Australian Marine Complex (AMC) in Henderson not being utilised by future FLNG projects.

The WA government should make clear to Shell that Australia's resources are leased at the behest of the Australian people and that they rightly expect to be adequately compensated in the extraction process.

FLNG will in no way adequately compensate Australians for the use of their natural resources, particularly when compared with the baseline of economic activity experience in the recent decade.

#### **4. SAFETY RISKS ASSOCIATED WITH FLNG**

The Shell Prelude FLNG (Floating Liquid National Gas) is an untested operating model for refining and exporting LNG.

There are a few key risks points of FLNG that are worth noting for the purposes of this submission. However it is highly likely new risks will emerge given the operations model is not yet known or tested.

##### **A. Medical Evacuations**

The closest area hospital to the proposed Browse FLNG operation will be Broome.

Broome being a regional based hospital operation would need the support of larger hospitals in Perth or quite possibly Darwin in order to adequately provide emergency care as the need arises.

A medical incident offshore that required medical evacuation would involve a 5-6-hour (helicopter call out and return) helicopter medi-vac for the purposes of receiving basic medical treatment in Broome, placing the injured individual/s at severe risk.

Any complex treatment would require a further 3-4hour flight to a metropolitan based hospital in Perth or Darwin, once again creating further danger for the injured patient/s.

With the distances being travelled to access the Prelude FLNG facility, helicopters transfers en route to the facility would have to refuel several times to make the trip. This would likely need to occur in remote locations on the Kimberley coast, such as the Truscott airbase, if the trips involve medical evacuation to Darwin.

This factors in the need for 2-3 advanced life support qualified paramedics on the FLNG facility the entire time it is operational.

### **B. Location of Asset from Processing**

As has been seen from other critical incidents, processing hydrocarbon can be an extremely volatile operation.

The FLNG ship will operate in close proximity to the Browse gas asset. This close proximity will expose a large mass of people to harm if there is a critical incident involving the well during the extraction process.

Given the new nature of the untested technology, the likelihood of an accident is far greater than normal.

### **C. Cyclone & Extreme Weather**

While the design of the Shell Prelude LNG facility is purported to allow it to withstand weather events such as a large category 5 cyclone, it is difficult to imagine this being an absolute fact.

History is littered with supposedly impregnable feats of engineering coming unstuck in the face of extreme weather and unforeseen circumstances. Examples such as nuclear reactor facilities in Japan or oilrigs in the Gulf of Mexico come to mind when thinking of high profile environmental disasters.

With extreme weather events occurring in recent years that are anecdotally increasing in their intensity and severity - such as Cyclone Yasi - it cannot be said with any degree of certainty that the Prelude facility will be able to withstand such a severe weather event.

More concerning is that the facility will have limited capability to move out of the direction of oncoming cyclones and severe weather events. Crew will be expected to man the vessel during the event, placing them in direct danger if the vessel suddenly becomes unable to withstand the extreme weather event.

## D. Design and Construct

Onshore LNG facilities of the same or similar operating size are spread over several hectares, and are isolated from one another.

In the event of a critical incident this isolation allows for operations in one area to be quarantined and closed while other operations continue. This distance between activities allows for the incident to be contained and prevent a flow on catastrophe from occurring.

An FLNG facility will involve multiple operations and controls in extremely close quarters relative to onshore facilities.

As a result the chance or risk for critical incident that flows on into other areas of the operation is inevitably increased. This raises safety concerns for the entire FLNG operation.

## 5. IMPACT OF FLNG ON LOCAL GAS SUPPLY

Energy is a key component of Australia's economic success.

Australia until recently has had highly competitive energy prices, which have acted as a comparative advantage, particularly in energy intensive manufactures.

It is vital to understand that Australia is the **only** country in the world that simply allows energy companies to export gas as LNG without appropriate controls in place to secure domestic supply.

**Australia is set to exacerbate this problem by allowing its natural gas reserves to be extracted through the use of FLNG.**

FLNG will severely limit the power and control Australia has over its own domestic energy reserves as well as reduce the economic incentives for gas producers to service Australia's domestic market – a market that they are already grossly under servicing, as evidenced by Australian domestic gas prices.

Australia's natural resources are held on behalf of the Australian people.

It is a worthy policy debate to consider whether there are broader benefits to be extracted from a more strategic deployment of Australia's vast energy wealth, than simply exporting it for a narrow financial benefit to very few direct private beneficiaries.

### A. No global price for gas

It is often overlooked that currently there is no 'global' price for gas, as compared to crude oil.

Gas prices are dictated by supply in regional areas.

High prices in Australia and WA are having a significant negative impact on Australia's domestic manufacturers.

Internationally natural gas prices currently are varied, depending on availability of gas.

Asian markets have a gas price of roughly \$11-13 due to a lack of available supply, indicating the significant price differential that exists in global gas markets.

These high prices increase the cost of doing business and highlight the potential advantage that energy rich economies have relative to competitor nations in downstream, high energy manufacturing.

Despite this Australia, as an energy rich nation, has chosen to link its price to the LNG export price – thus producing a price domestically that is closer to resembling that of an energy poor nation.

The Henry-Hub price – while not a global price – is useful for the purposes of bench marking global prices.

In recent years the United States has seen falls in the price of gas from highs of US\$13/GJ to lows of \$2-3/G. This price fall has largely been the result of a boom in shale or unconventional gas. Importantly for the US economy, the majority of this gas being retained domestically for consumption due to export controls.

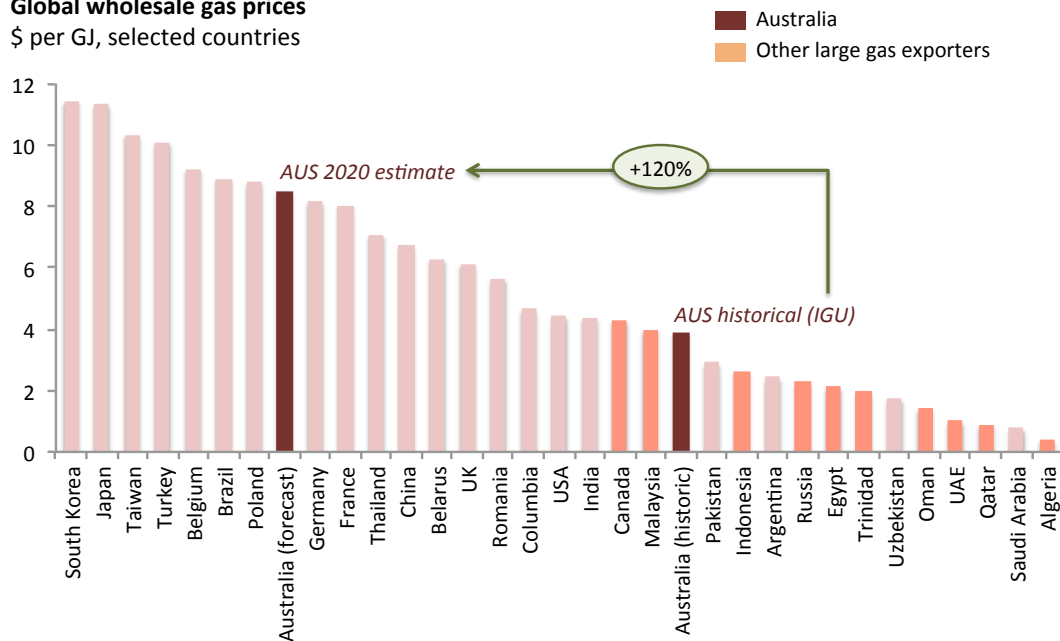
This boom in cheap gas has led to the 'reshoring' of manufacturers who have returned to the US after previously exiting to lower cost economies.

Even in Australia there is a strong differential between WA prices and Eastern Australian prices.

## B. Trading away a competitive advantage

### MAKING AUSTRALIA THE MOST EXPENSIVE GAS EXPORTING MARKET, TURNING GAS FROM A STRATEGIC ASSET TO A LIABILITY

**Global wholesale gas prices**  
\$ per GJ, selected countries



IGU World LNG Report 2011

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Australia is the only energy exporter that allows its domestic energy market to suffer for the purposes of a narrow benefit of LNG exports.

By exporting gas significantly, it seems that Australia is creating a higher than necessary price for gas for its own economy, and building in a structural cost disadvantage for business.

Australia has inadvertently moved itself from a competitive gas price position into one of the world's most expensive gas market.

Prices in Australia have risen significantly in recent years, despite an abundance of gas.

Western Australia	2009 Price ~\$7.50/GJ	2012 Price ~\$9.00+
Eastern Australia	2009 Price \$3.50/GJ	2012 Price ~\$6.00+

Some projected prices in WA are as high as \$12/GJ. This is a significant rise from a not-so-distant price of \$2.50/GJ.

<sup>7</sup> <http://www.manufacturingaustralia.com.au/news/research/impact-of-gas-shortage-on-australian-manufacturing/>



Both of these prices have the potential to increase further, with market expectations that prices will continue to climb, rather than fall as LNG contracts for export kick in in 2015.

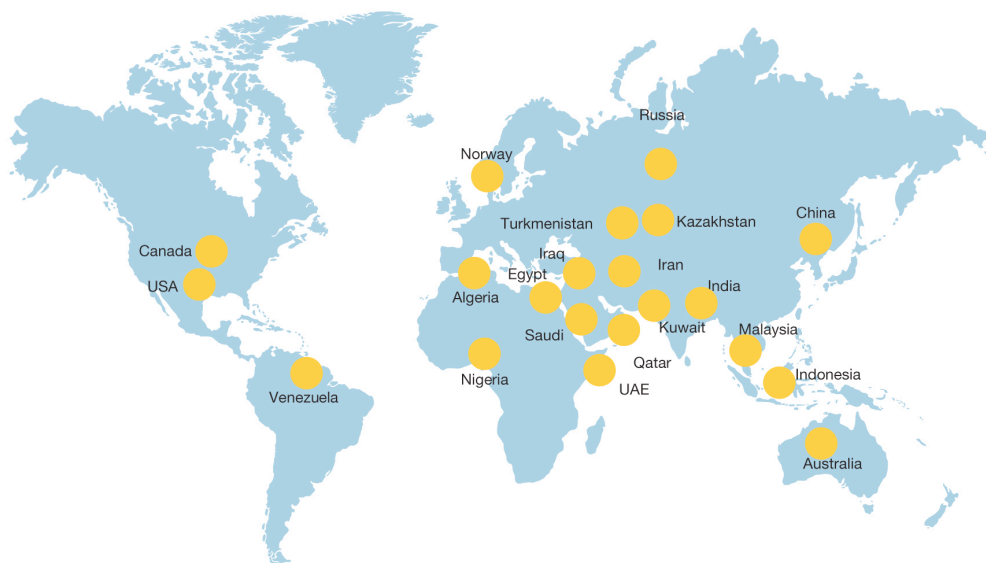
The significant rise in gas prices could cost industry and households an extra \$3.1 billion a year in WA; an extra \$597 million a year in Queensland; and an extra \$1.6 billion a year in Victoria, NSW and SA.<sup>8</sup>

This will have implications for the cost competitiveness of Australia industry, the cost of living for consumers, as well as distort and reduce incentives for installation of carbon reducing technologies such as COGEN facilities.

### C. Other Jurisdictions

92% of all natural gas reserves in the world are either controlled directly by national governments or are under quasi-national control through state-owned energy enterprises.

#### Top 20 World Natural Gas Reserves



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

\*Source DomGas Alliance, Australia's Domestic Gas Security, 2012

<sup>8</sup> DomGas Alliance, Australia's Domestic Gas Security, Report 2012

With only 2% of the global conventional gas supplies and only 8% of gas available for 'open' investment, Australia is allowing its reserves to be dominated by International Oil and Gas companies (IOC) for their own market purposes.

#### **D. Other nations are being more judicious with their reserves.**

There are only 3 countries in the world that allow for 'open' investments or Full International Oil Company (IOC) access into gas reserves as well as LNG exports – Canada, the United States and Australia.

Yet even Canada and the US have imposed controls on their gas markets that favour domestic supply.

#### **Top 20 Natural Gas Reserves with Full International Oil Company Access and Unrestricted Gas Exports**



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

*\*Source DomGas Alliance, Australia's Domestic Gas Security, 2012*

**As a result of past policy inertia, Australia – despite being an energy rich nation with vast gas fields being unlocked – now has the highest domestic gas prices of any nation that exports gas.**

Australia is wilfully subjecting its economy to the effects of being a de facto 'energy poor' nation – such as Japan – when its natural wealth should indicate otherwise.

This is an unacceptable situation.

Cheap energy has fuelled the Australia economy for the 20<sup>th</sup> century, and with a gas reservation policy, can do so again.

#### **a. United States**

The US Energy Agency has made LNG exports conditional on appropriate prices being maintained for domestic gas markets. With the shale gas boom, this has seen prices drop to ~\$2.50.

The US uses the Henry Hub price as the base rate for export, with export tariffs (15%), tolling fees and shipping then built on top of this. This is a clear indication that the US has rejected the notion of a 'global' price for natural gas, with the US considering the Henry Hub price to be indicative of domestic prices only.

After an extremely long process the US has approved one LNG export facility. Conversely Australia is set to have a minimum of 7, with more on the way.

#### **b. Canada**

Canada has a long history of gas export that predates Australia.

Canada, like Australia, is a resource rich nation.

Under its domestic gas policy Canada mandates that the case for export must be price tested in such a way that ensures that the domestic market is not disadvantaged from any exporting of gas.

This occurs before any license to export gas is granted.

**It is worth noting that no nation in the world allows for its gas reserves to be exploited using FLNG.**

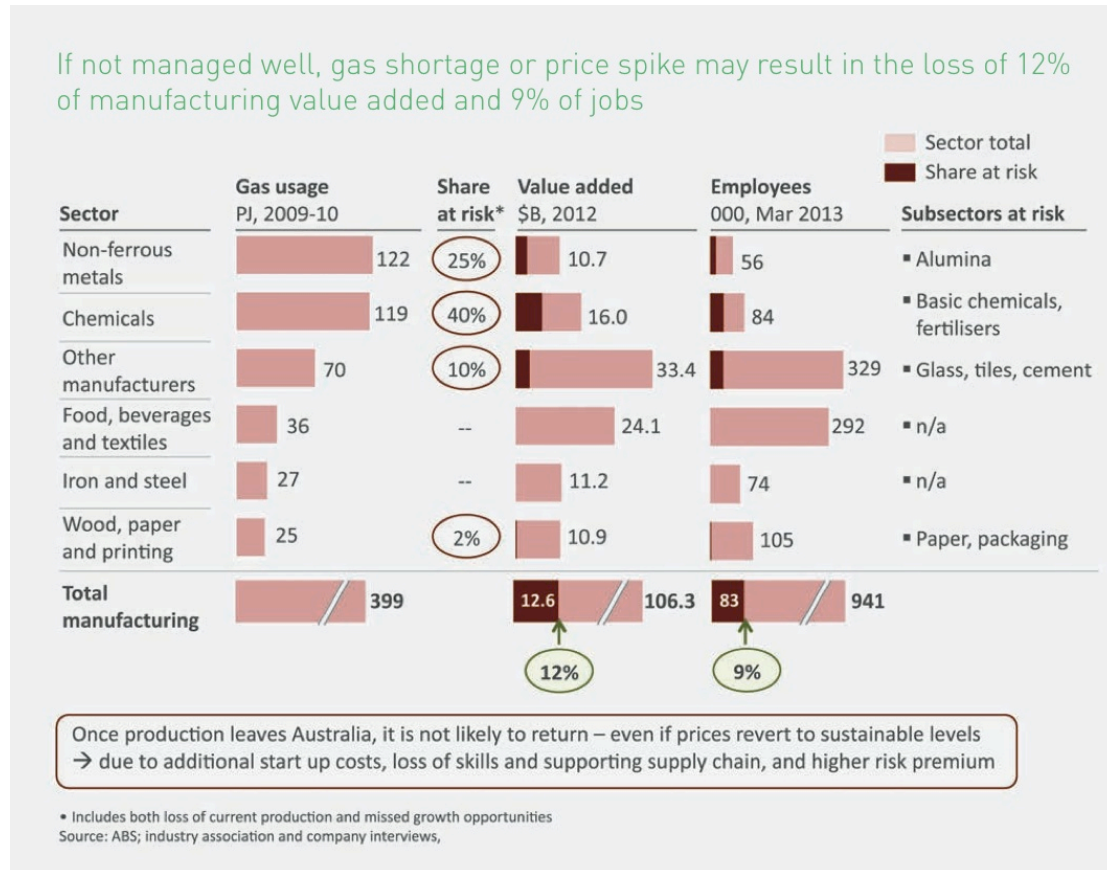
Either the US or the Canadian approach to gas extraction would be far more advantageous to the Australian economy than the current approach that sees Australians subsidise global gas markets to their own detriment and the benefit of large oil and gas players.

### **E. Impact on manufacturing**

It has been estimated by Andrew Liveris of Dow Chemicals that while LNG exports provide roughly a 3X return on capital investment, a reservation policy that acts as a 'feedstock' into downstream manufactures, as well as underpinning lower energy prices can offer as much as a 20X return.

PACIA has estimated that for every \$1 in export earnings made from LNG, \$21-24 is lost in domestic industrial output.

Yet despite this hidden potential, Australia's leading manufacturers have publicly stated that they have been unable to secure competitive gas prices for 2015 onwards.



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Large projects, such as in Gladstone QLD, have overcommitted to supply large quantities of gas to Asian markets from 2015 – despite not being in a position to produce that requisite gas to service this demand. As a result gas that is presently servicing Australian domestic consumption will be sent offshore, causing a shortage of supply and a large price shock. This has the potential to send marginal businesses to the wall.

A recent survey of business gas users in Australia by AiGroup found the following

- Half of all businesses surveyed required a new gas contract

<sup>9</sup> <http://www.manufacturingaustralia.com.au/news/research/impact-of-gas-shortage-on-australian-manufacturing/>

- nearly 10% could not get an offer at all;
- a third could not get a serious offer; and
- a quarter could get an offer from only one supplier.
- Those companies seeking longer contracts were \$8.72 a gigajoule – more than double the historic price.<sup>10</sup>

This represents a huge problem for Australia's manufacturing sector that employs roughly 1 million people and makes up 8-9% of GDP annually.

If gas prices are allowed to rise due to an export bias, it is projected that Australia's manufacturing sector will be impacted upon greatly. It is anticipated that 200,000 jobs – 2 per cent of Australia's workforce – will be lost as well as \$29.5 billion in lost investment and economic activity.<sup>11</sup>

This figure also ignores the loss of new investment and jobs that would have resulted but for the spike in domestic gas prices – thus rendering the proposed commercial activity uneconomic.

When contrasted with the gas lead US manufacturing rebirth this is a particularly appalling outcome.

#### F. FLNG – making a problem worse.

By allowing FLNG Australia effectively risks losing control over its energy supplies and to a degree its security.

When processed domestically Australia can exert greater control and influence over the direction of energy supply and extraction.

The removal of such physical hurdles will disconnect Australia from its own sovereign energy supplies and allow gas producers to effectively dictate the supply of Australia's energy.

As noted by Premier Barnett – ***“No other country in the world would allow its energy resources to be developed in offshore construction, loaded and sailed away.”***

Not only will FLNG not help deal with Australia's impending gas shortage, it will only incentivise gas producers to send more of Australia's gas offshore – this can only be expected to place further upward pressure on Australia's domestic gas price and hinder Australia's industrial activity, risking jobs and investment.

Presently onshore gas processing at least provides an incentive to supply locally due to the associated transport and logistical costs of servicing foreign markets.

<sup>10</sup>[http://www.aigroup.com.au/portal/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/LIVE\\_CONTENT/Publications/Reports/2013/13219\\_energy\\_shock\\_gas\\_crunch\\_is\\_here\\_web.pdf](http://www.aigroup.com.au/portal/binary/com.epicentric.contentmanagement.servlet.ContentDeliveryServlet/LIVE_CONTENT/Publications/Reports/2013/13219_energy_shock_gas_crunch_is_here_web.pdf)

<sup>11</sup> ibid

Without this logistical hurdle to overcome it is difficult to foresee a circumstance where a major gas producer would favour Australia's relatively small market for gas as compared to the nearby Asian markets that are more lucrative and directly accessible.

### **WA Domestic Reservation Policy**

While it is noted that Western Australia presently has a domestic reservation policy of 15%, this submission would call for a more stringent application of this policy on all major gas projects.

This is particularly relevant given the sudden entry of FLNG into the domestic gas extraction & processing equation.

## **6. INDIGENOUS IMPACTS**

It goes beyond the scope of this report to comment on the inequity faced by indigenous Australians, many of whom find themselves living with health and welfare indicators typically associated with third world countries.

Australia's natural resources boom provides a once in a generation opportunity to rectify historic issues of inequity that have flowed as a consequence of dispossession.

The mooted \$1 billion figure set aside for local indigenous compensation from the proposed Woodside project at James Price Point would have represented a boon for remote indigenous communities and an opportunity to close the well documented 'gap'.

The unemployment rate in this region has consistently been higher than the State's unemployment rate since 1996-97. The unemployed rate was 6.5% in September 2011, well above the state rate of 5.1%. Many of the long-term unemployed in the region are indigenous.

The utilisation of FLNG shamefully robs indigenous Australians from economically benefiting from the extraction of natural resources that historically belong to them. The lack of onshore processing and associated compensation will serve to compound historic inequity as well as depriving the community from valuable resources that should be deployed in order to appropriately address the ongoing disadvantage experienced in remote, WA indigenous communities.



## CONCLUSION

On any objective measure FLNG is a bad outcome for the people of Western Australia and the Australian nation.

The natural gas resources are the collective wealth of the nation – they should be extracted in a manner that is consistent with the national interest.

Allowing FLNG in the Browse Basin will result in the following:

- Less jobs for Australians on major gas projects.
- Less economic activity and lower employment in downstream sectors.
- Lower levels of taxation federally and at state level – meaning less investment in services and infrastructure.
- Manufacturing firms closing their doors – placing at least 200,000 jobs at risk.

Importantly this proposed venture will stand as a test of government resolve. Should this project be allowed, it will only lead to the proliferation of FLNG extraction across Australian gas reserves, and consequently the squandering of mass economic gains that should accrue to the Australian nation.

**This is an outcome that cannot be allowed.**

Gas companies must not be permitted from engaging in unconscionable investment decisions that would not be permitted in any other jurisdiction in the world.