



Senate Select Committee on Fuel and Energy Submission

July 2009

Table of Contents

1	INTRODUCTION	3
2	ABOUT WOODSIDE	4
3	REALISING AUSTRALIA’S ENERGY RESOURCE POTENTIAL	5
3.1	Natural gas supply: Woodside in the Western Australian market	5
3.2	Australia’s natural gas export potential.....	7
3.3	A tax regime that supports investment in LNG.....	9
3.4	Managing Australia’s reserves	11
3.5	Efficient use of infrastructure – the case for hubs	11
3.6	Regulatory burden.....	12
3.7	Carbon Pollution Reduction Scheme (CPRS).....	12
3.8	Infrastructure	13
3.9	Ensuring human resource capacity	14
4	CONTACT	16

1 Introduction

Woodside welcomes the opportunity to make a submission to the Senate Select Committee on Fuel and Energy.

Woodside acknowledges the public policy challenge for Government to ensure the security and environmentally sustainable delivery of reliable and affordable fuel and energy supplies.

In response, Woodside supports the principle of a national energy policy framework to take our nation through the next two decades.

Responding to questions of policy makers about key factors likely to affect energy security, Government policy and practice is a priority consideration.

Australia has long claimed that its political and fiscal stability provides a competitive advantage. However, the removal of accelerated depreciation, changes to long-standing tax arrangements and increasing delays in accessing land and environmental approvals, put at risk investment in energy infrastructure. Furthermore, the introduction of the Government's Carbon Pollution Reduction Scheme (CPRS) as proposed will affect project economics and risk profiles of future energy developments.

In this submission Woodside highlights issues critical to driving project development and protecting Australia's competitiveness as an energy investment destination. We also touch on areas of social responsibility important to our company and the communities in which we operate, namely Indigenous participation and workforce demographics.

We trust our submission assists the Committee in its deliberations and in turn, contributes to the making of sound public policy to underpin future energy supply and benefit the Australian community.

2 About Woodside

Woodside is an Australian leader in oil and gas exploration, development and production. We seek to maintain this position through the responsible delivery of outstanding economic performance, environmental excellence and social contribution.

Woodside has a history spanning more than 50 years of developing and operating ambitious, large-scale oil and gas projects.

The company was formed in 1954, with the establishment of Woodside (Lakes Entrance) Oil Co NL, with the aim of exploring for oil in southern Australia.

After 10 years without commercial success, Woodside was awarded exploration rights over more than 367,000 square kilometres off north Western Australia in an area known as the North West Shelf. In the early 1970s Woodside's story changed forever with a string of discoveries of major, world-class gas reservoirs.

Based in Perth, Western Australia, Woodside has major operational assets in Australia and the United States and exploration interests around the world. Woodside's key assets and development opportunities are Australian.

In 50 years we have grown from a pioneer oil and gas explorer to Australia's largest independent producer of oil and gas and one of the world's largest producers of liquefied natural gas (LNG).

Our continued growth aligns with the early commercialisation of our resources, including the Browse and Sunrise developments, and in optimising existing infrastructure for the timely delivery of discovered resources as energy products.

Woodside operates Australia's largest resources project, the North West Shelf Venture (NWSV) Karratha Gas Plant (KGP) in Western Australia, which produces more than 40% of Australia's oil and gas. The NWSV KGP supplies around 65% of Western Australia's pipeline gas production.

Woodside also operates the Otway Gas Plant in Victoria, supplying gas to eastern Australia.

In late 2010, Woodside will produce first gas from the \$12 billion Pluto LNG Project near Karratha – the largest single investment by an Australian resources company.

The Browse LNG Development in northern Western Australia will potentially establish Australia's third LNG hub at the State Government's LNG Precinct in the Kimberley, while we continue to progress the proposed Sunrise LNG Development off northern Australia.

Woodside's goal is to be a global leader in LNG production. Woodside is perfectly positioned to play a key role in the commercialisation of Australia's vast gas resources.

3 Realising Australia's Energy Resource Potential

3.1 Natural gas supply: Woodside in the Western Australian market

Woodside understands the desire of Government to ensure natural gas is available for local delivery and use in sufficient volumes to maintain long-term energy security and economic development. Woodside also understands the potential for new projects to supply the market, thereby increasing competition and security of supply through diversification.

Woodside, as operator of the NWSV KGP, has been supplying natural gas to customers since 1984, and through the NWSV, remains the largest supplier to the Western Australian pipeline gas market.

The Australian Petroleum Production and Exploration Association (APPEA) has summarised the Western Australian gas market in the following terms: *“Western Australia has an abundance of natural gas. At current production rates there is enough gas to last for the next 100 years and more fields are being regularly discovered.*

Demand for natural gas has increased significantly in recent times, reflecting the commodities boom and an economic and environmental preference for gas. The cost of developing gas projects, like other major projects, has also risen dramatically.

These two factors, along with historically low prices for domestic gas and periodic disruptions to production are the primary reasons for a short-term tightness in the supply of gas. While there is currently little spare capacity, the market is responding and competitively priced gas will be available to meet genuine demand into the future.”¹

The Western Australian pipeline gas market is unique in that five major customers – Alcoa, Alinta, BHP Billiton, Burrup Fertilisers and Verve Energy – account for approximately 90% of the State's gas consumption. Residential usage accounts for just 4% of the WA gas market.²

The Western Australian pipeline gas market is finely balanced between demand and supply in the near term. New projects are expected to commence in 2011 and 2012/13 respectively and these suppliers are active in the market attempting to secure customers.

The challenge for gas projects targeting the Western Australian pipeline gas market is to contract sufficient demand by securing at least one major customer with significant volume, and use this as a springboard to contract additional customers with smaller overall gas requirements. However, contracting to one new significant project (particularly prior to commencement of the project's operations) can represent a substantial risk, exposing pipeline gas projects.

Revenue from gas sales is determined by price and volume. The depth of gas export markets enable significant volumes of gas to be delivered at the start of a gas project. For example, Asia-Pacific LNG consumption in 2008 was around 117 mtpa³ enabling the sale of the entire output from a 4 mtpa LNG train from start-up. The price for these volumes is currently benchmarked to the oil price with the resulting revenue (price x volume) potentially justifying the billions of dollars in initial spend. By contrast, the entire WA market for pipeline gas is equivalent to about 5.8 mtpa of LNG.

While LNG trains require significant capital expenditure, the majority of initial investment in a gas project is associated with upstream gathering facilities (wells, offshore infrastructure and subsea pipelines). Therefore, many gas projects dependent solely on pipeline gas revenues (without significant condensate revenue) will require very high prices to justify the investment

¹ APPEA Fact File, The Western Australian Gas Market

² APPEA Submission to The Gas Supply Emergency Management Review Committee, Gas Supply Security in Western Australia, May 2009 p.5

³ FACTS Global Energy

decision. The value then of LNG to pipeline gas production is that the sale proceeds provide an adequate revenue stream for returns to shareholders on the massive initial capital spend.

As expressed by APPEA: "...many of the large, remote, offshore gas fields could not be developed without LNG exports to underwrite the high-cost gas production and transportation infrastructure. In the case of the North West Shelf Project, Gorgon and potentially other LNG projects, this enables gas to be supplied to the domestic market at much lower prices than would otherwise be possible.

The threat of increasing LNG exports to WA's long term gas supply has been greatly overstated by some stakeholders. These LNG projects provide opportunity to add larger increments of gas supply to the domestic market than is possible from most stand-alone domestic gas projects."⁴

Figure 1 shows the average natural gas prices from Q1 2005 – Q2 2008.

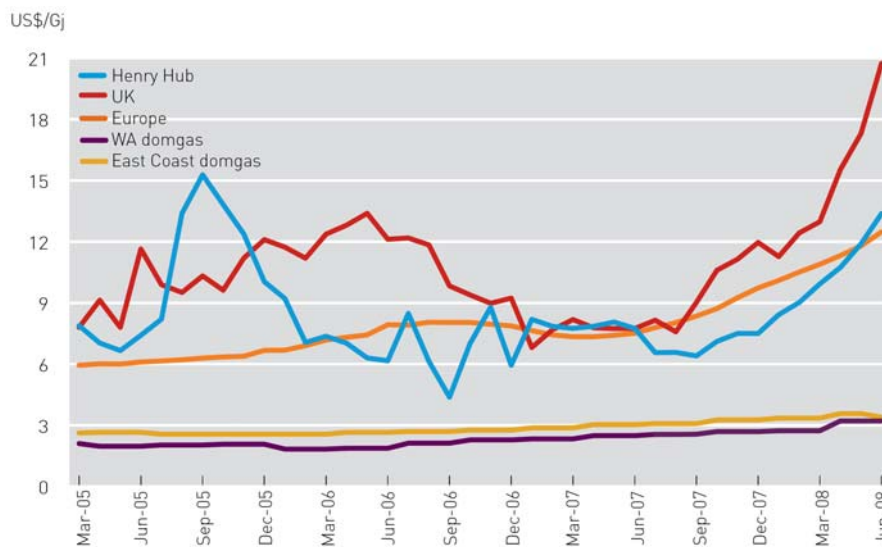


Figure 1 Average Natural Gas Prices (US\$/Gj)
Source Argus Monthly LNG, EnergyQuest, DoIR⁵

On comparison, Western Australian gas prices are less than Australia's east coast and significantly lower than in the UK and Europe. Gas prices in Western Australia largely remain low under long-term contracts, reflecting the project economics when the gas resource was developed.

The long-term gas supply picture for WA will necessarily involve new gas resources that have fundamentally different compositions and development characteristics than current supply sources. As a consequence, new developments face different challenges in aligning resources with pipeline gas and LNG markets to supply customers while providing an acceptable economic return to shareholders.

Woodside believes Government has a fundamental role in encouraging gas exploration and enabling market forces to drive the response to the domestic pipeline gas demand. As expressed by APPEA, the elements of this role include among other things, the setting of policies that support expansion of a free market for gas and increased investment.⁶

Woodside will continue to review opportunities to develop additional supply into Australian markets.

⁴ APPEA Submission to The Gas Supply Emergency Management Review Committee, Gas Supply Security in Western Australia, May 2009

⁵ Western Australian Department of Industry and Resources, The Western Australian Mineral and Petroleum Statistics Digest 2007-2008

⁶ APPEA Fact File, The Western Australian Gas Market

3.2 Australia's natural gas export potential

There is a commonly held view that Australia has been successful in exploiting its natural gas resource. This view is based on the amount of discovered resource, corresponding proposed LNG developments on the drawing board across the nation, and the longevity of the now mature gas fields supplying the NWSV KGP in Western Australia's Pilbara region.

By any measure, Australia has an abundance of discovered natural gas. In a recent speech to the National Press Club, APPEA's CEO presented a startling figure of more than 400 trillion cubic feet (Tcf) of known natural gas in Australia.⁷ Even excluding the 250 Tcf estimated from coal seam methane, there is known to be at least 130 Tcf of conventional gas off the west and north-west coast of Western Australia, and a further combined 20 Tcf in the Gippsland and Otway Basins and onshore in the Cooper Basin.

Despite a reported increase in exploration expenditure in 2007-08⁸ the vast majority of Australia's gas resource was discovered some years ago – for instance, the Torosa field in the Browse Basin was discovered in 1971, with Gorgon a decade later in 1981 and the nearby Scarborough field in 1980.

However, Australia has only two operating LNG facilities - the NWSV KGP operated by Woodside commenced export supply in 1989⁹ and Darwin LNG operated by ConocoPhillips which began production in 2006. The Pluto LNG Project, located adjacent to the NWSV, is expected to produce first gas in late 2010 from an initial train. Planning for further Pluto trains is underway.

Pluto stands out from many other LNG developments in Australia because of its rapid transition from initial discovery in 2005, to final investment decision (FID) in mid-2007 and first gas expected in late 2010. Despite the recent global commodities boom, Pluto is one of only three greenfield LNG projects in the world to receive sanction in the three years to 2008.¹⁰ The other two projects are located in Peru and Angola.

Global LNG demand is expected to continue growing by about 7% annually through to 2020.¹¹ This growth prediction represents a huge challenge if industry is to meet market demand.

It is not that Australia suffers from a lack of potential to meet global demand. At least 12 proposals for LNG projects are at some stage of development, but only the Gorgon project is expected to take FID in 2009 and Ichthys is the only other project to have commenced Front End Engineering and Design (FEED).

It is noteworthy that in April 2008 at the APPEA Conference in Perth, Wood Mackenzie's Ben Hollins, Head of European Gas and Power consulting practice stated: "*The pace of project development has been too slow and Australia, we think, is actually underweight in the global LNG business relative to where it ought to be.*"¹²

Hollins went on to say Australia currently supplies only 8% of the global LNG market and represents the most expensive LNG in the Asia-Pacific. He also noted that the slow rate of development of Australian projects was a problem for LNG buyers in Asia and that there was confusion about which of the many projects might go ahead first. Hollins commented that this was not good for Australia's interests and advocated that "*Government does need to play its part in ensuring that developments do proceed.*"

⁷ Belinda Robinson, Natural Gas – A Strategic National Asset, National Press Club, 25 March 2009

⁸ ABARE, Energy in Australia 2009, p.5

⁹ In 2009 the NWSV celebrates its 20th year supplying LNG to the Asia Pacific region

¹⁰ Woodside Petroleum Ltd, Annual Report 2008, p.10

¹¹ Based on Wood Mackenzie LNG Service, demand data forecasts, in million tonnes per annum, year to year up to 2020.

¹² Ben Hollins, Australian Gas in a Global Context, APPEA Conference, April 2008

Hollins' views were reinforced at the recent 2009 APPEA Conference, where the Managing Director of IHS CERA, Michael Stoppard pointed to Australia's success in finding gas, but its poor record of converting development proposals into reality. Stoppard highlighted the fact that only Nigeria, Russia and Iran have poorer records than Australia in realising their LNG potential, relative to their reserves position.¹³ Figure 2 shows LNG capacity by status and country.

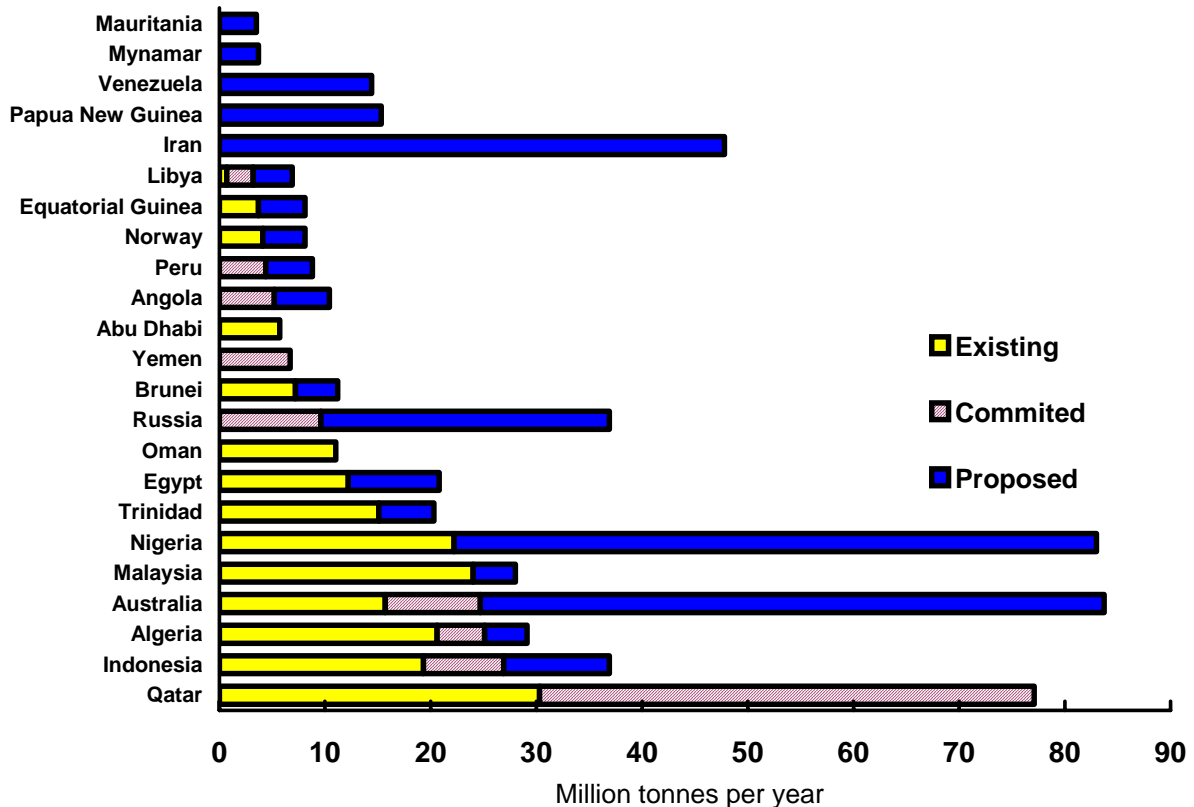


Figure 2 LNG capacity by status and country
Source CERA 2007

The industry will see a jump in supply capacity of ~30% over the next couple of years as LNG trains in Qatar, Indonesia (Tangghu), Russia (Sakhalin) and Yemen come on line. According to CERA, "by 2010, Qatar's two LNG companies, Qatargas and RasGas will have a production capacity of 77 million tonnes per annum (mtpa)." There is currently a moratorium on further capacity in Qatar until 2012 but this could be reviewed at any time.

While the global financial crisis has eased demand pressures at this time, a return to tight market conditions could favour Australian projects subject to increasing demand, particularly in India and China. However, competing development in for example, Qatar and Nigeria (refer to Figure 2 above) would impact the opportunity for Australian projects to develop as they are cost challenged relative to these international developments. For Australian LNG to be the supplier of choice for increased demand, it needs to be ready to make the most of the opportunity; making it urgent that the development of Australian LNG is driven in a more strategic manner.

At the 2009 APPEA Conference, the Federal Minister for Resources, Energy and Tourism, the Hon Martin Ferguson AM MP called for all parties to do more to cooperate: "...to bring third party gas to market in a way that provides commercial value for both infrastructure owners and third party gas holders."¹⁴

¹³ Michael Stoppard, Managing Director IHS CERA, Land of Plenty: Realising Australia's Gas Assets, speech to APPEA Conference, 1 June 2009.

¹⁴ The Hon Martin Ferguson AM MP, Minister for Resources and Energy, The Role of the Oil and Gas Industry in Australia's Economic Recovery, speech to APPEA Conference, 1 June 2009

The Minister also said: *“While there is a role for Government in planning for orderly and optimal industry development, I believe there is great potential for the industry to do more through commercial negotiations.”*¹⁵

Woodside recognises that optimising commercial gas facilities, social infrastructure and project footprint can deliver industry goals and satisfy Australia’s social and economic imperatives. On this basis, we believe resource owners will increasingly value the opportunity to access available infrastructure that is already providing opportunity to commercialise previously stranded discoveries.

3.3 A tax regime that supports investment in LNG

In the face of global economic downturn, LNG, with its massive construction programs and capital investment, secures employment for thousands of workers and underpins a positive balance of trade. With domestic and international demand for action to reduce global greenhouse gas emissions, LNG is the positive energy choice, being the lowest emitting fossil fuel and the cleanest, most plentiful fuel available now to transition the world to a lower carbon future.

However, LNG projects have long gestation and pay-back periods, require substantial up-front investment and need to be supported by long-term supply contracts with major overseas customers, usually exceeding 15 to 20 years. Australian greenfield LNG developments represent some of the most expensive in the world due to the physical characteristics of the resource and their location. Figure 3 shows the high cost of Australian developments relative to international competitors.

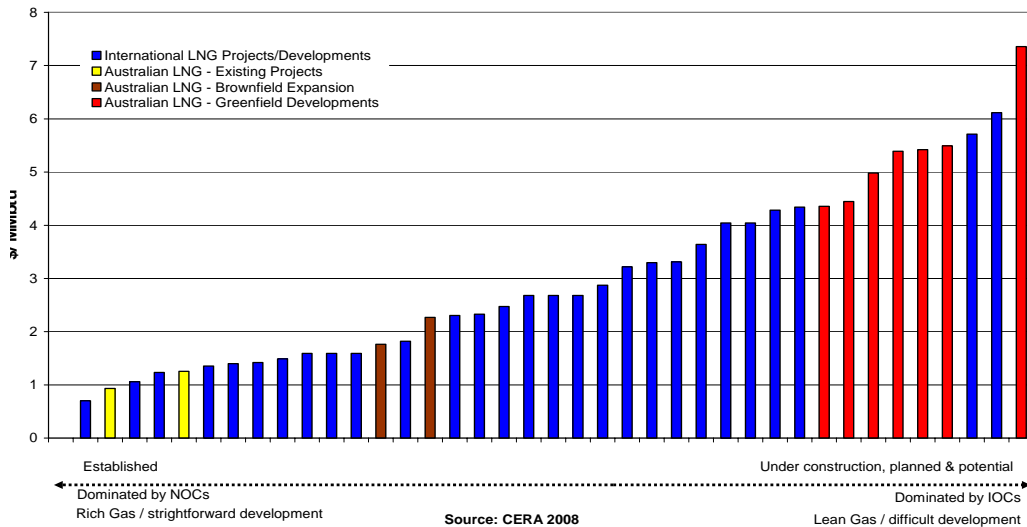


Figure 3 Cost comparison for development of global LNG projects
Source CERA 2008

Mechanisms in Government policy to support the LNG sector would make a material difference to companies looking to make investment decisions in the short and medium-term. As previously raised by Woodside and APPEA there is a compelling case for the re-introduction of accelerated depreciation for LNG projects in Australia.

To quote APPEA: *“In seeking ways to stimulate economic recovery, governments should note that few other industry sectors have so many prospective major projects at such an advanced stage of planning each capable of attracting billions of dollars in investment and attracting thousands of construction jobs. Few other fiscal measures could help attract such a high ratio of private funds attracted to public funds forgone, particularly since the proposed depreciation changes would amount to a deferral of only a small proportion of the large, long-term tax*

¹⁵ Ibid

revenues generated by the new investment in LNG projects. As well as promoting investment and jobs, a more attractive taxation regime for gas projects would also help provide a long-term solution to other high priority policy objectives in relation to energy security and greenhouse gas emissions.”¹⁶

A 2009 PricewaterhouseCoopers study¹⁷ found that Australia has a high total tax take as a percentage of commercial profits when ranked against other countries (coming in at 127 out of 181 with the higher rank indicating a higher tax take).

Australia’s company tax regime cannot be considered in isolation, but needs to be analysed in the context of fiscal settings which make Australian LNG competitive against other gas producing countries. As demonstrated in Figure 4, Australia’s fiscal regime places additional burden on Australian LNG projects relative to our key competitors in Malaysia, Nigeria, Oman and elsewhere in the Middle East.

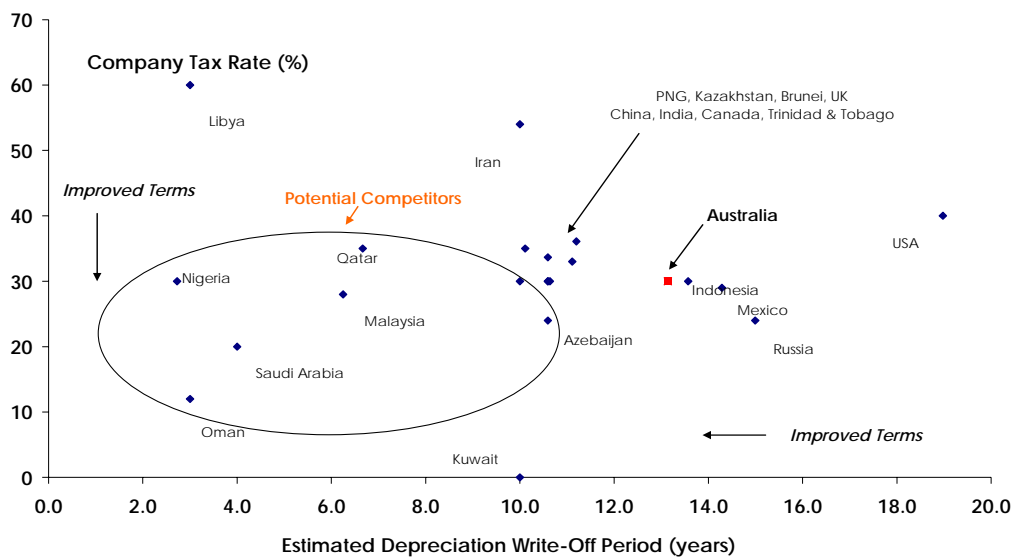


Figure 4 Company tax rate/depreciation comparison – gas projects
Source APPEA Strategic Leaders’ Report/KPMG¹⁸

Woodside maintains that accelerated depreciation is the most effective way to ensure Australian LNG remains competitive against overseas LNG developments. A five year straight line depreciation write-off would more accurately match the returns from LNG projects as substantial risk is involved in investing billions of dollars up front (most now costing in excess of \$30 billion) and waiting extensive periods of time before a return on investment is achieved.

Improving a project’s rate of return through accelerated depreciation strengthens the economic viability of major gas projects, improving the likelihood that FID will be taken on future projects. This is achieved by deferring the timing of taxation flows to Government and not by reducing the aggregate value, making more likely, revenues that would otherwise not be realised if projects fail to proceed.

In the 2009 Federal Budget, the Government announced that it would extend the offshore exploration incentive for Petroleum Resource Rent Tax by one year. This incentive has been in place since 2004, however, its effectiveness in stimulating petroleum exploration in frontier areas is unclear. Woodside encourages a review of the effectiveness of this measure. In our view, incentives provided through the corporate tax system such as increased write-off rates for exploration expenses, would provide a stronger incentive for offshore frontier exploration.

¹⁶ APPEA, State of the Industry 2009: A status report on Platform for Prosperity – a strategy for maximising the value of Australia’s oil and gas reserves p.3

¹⁷ Department of Resources, Energy and Tourism, Realising Australia’s Energy Resource Potential p.31

¹⁸ APPEA Submission to Australia’s Future Tax System Consultation Phase, May 2009

3.4 Managing Australia's reserves

The effective management of petroleum reserves on behalf of the people of Australia is of critical importance. There has been a great deal of commentary recently about whether the Government is exercising its authority to the fullest extent and ensuring that commercial fields are developed in a timely manner.

The *Offshore Petroleum and Greenhouse Storage Act 2006* is the main statutory mechanism for the Australian Government to manage the nation's hydrocarbon reserves, including provisions relating to the granting and renewal of retention and production licenses over acreage. This legislation enables the Australian Government to drive exploration and development of reserves in order to provide long-term royalty streams to Government and flow-on benefits (through direct and indirect employment) which result from a buoyant industry.

If there is a new paradigm in the debate, it is that there is increasing LNG and pipeline gas infrastructure in Australia which offers options to resource owners to develop commercial projects utilising existing or foundation infrastructure. This in turn provides the Government with the opportunity to require title holders to assess commerciality against a variety of development scenarios and not just the title holder's preferred concept.

It is Woodside's view that the Government's largely unfettered powers in setting conditions on retention leases and production licences should be utilised to drive more immediate development outcomes. Woodside also believes that some changes to the existing regime to prevent warehousing of resources prior to FID, and to support title holders who are in favour of progressing early development of resources, are worthy of discussion.

The Federal Minister for Resources, Energy and Tourism, the Hon Martin Ferguson AM MP recently released a discussion paper on the Government's policy relating to the grant and renewal of retention leases. Woodside is currently preparing a detailed response.

3.5 Efficient use of infrastructure – the case for hubs

It is in Australia's national interest to develop gas resources sooner rather than later and in a way that maximises economic benefit and minimises environmental and social impacts.

With 130 Tcf of discovered gas off Western Australia awaiting development, market forces alone are not currently driving optimal development outcomes in Australia's LNG industry. The Government, therefore, through policy and regulatory settings, has a key role in the creation of mechanisms to drive international oil and gas companies and other asset owners to commercialise resources to benefit the Australian community.

Optimisation of economic infrastructure, including maximising Government and industry investment in supporting social infrastructure and consolidation of communities, offers a mechanism to accelerate development and underpin the sustainability of regional centres. The multiple benefits that can flow from such optimisation include the earlier return to Government of the Petroleum Resource Rent Tax (PRRT) and income tax.

Woodside's internal modelling shows that greater PRRT returns (in the order of billions of dollars) could be generated from the expansion of existing facilities, as opposed to the construction of greenfield sites. Expansion can offer lower capital cost outlays and quicker development times, reducing risk and improving the development environment. Preparedness on the part of resource owners to explore innovative commercial arrangements has the potential to deliver a greater number of projects across Australia in the next decade.

Natural hubs are in some cases emerging. The Burrup Peninsula is set to play host to two gas processing facilities with the expected start-up of Pluto Train 1 in late 2010. The potential for further expansion is significant as area is available on the Burrup Peninsula to accommodate at

least a further five LNG trains. A site in the West Kimberley has also been recently identified as a potential site for the development of Browse Basin gas fields.

Unless there is a clear drive by Government in its policy approach to maximising benefits through the utilisation of available infrastructure, an excessive number of hubs are likely. Such an outcome will compromise capital efficiency and delay the timing of development, resulting in a consequential loss of PRRT incentive for Government. Additionally, Government may be burdened with expectation to provide and support social infrastructure in unsustainable communities.

Woodside submits that development hubs should feature strongly in strategic planning to deliver future national energy security, and proponents of greenfield development concepts should be required to demonstrate that the foundation resource cannot be developed sooner through available infrastructure or alternative development proposals.

3.6 Regulatory burden

During research for the final report on Regulatory Burden in the Upstream Petroleum (Oil and Gas) Sector the Productivity Commission held many roundtable sessions to provide an opportunity for oil and gas companies to present examples of regulatory delay, compliance reporting burdens and jurisdictional duplication for approvals which were impacting the growth of the sector in Australia.

In the final April 2009 report, the Productivity Commission noted: *"The opportunity cost of projects that are delayed, reconfigured in a suboptimal way, or do not take place, represents one of the key potential costs associated with regulation. Australia's petroleum sector operates in a globally competitive environment where exploration and development capital is highly mobile."*¹⁹

The report continues: *"Regulatory delays or unnecessarily onerous regulatory requirements reduce the incentive to undertake investment, especially if regulatory requirements are seen as less onerous elsewhere."*²⁰

The Commission supports these findings with a range of practical recommendations, which mostly have the backing of the industry. The Productivity Commission Review is not unique in many of its findings, as the Review itself points out, implementation of recommendations from previous reviews would go a long way to improving the incentive to invest in Australia.²¹

The Productivity Commission's final report identifies opportunities to reduce regulatory burden. Woodside urges the State and Commonwealth to work together to deliver reform in this area.

3.7 Carbon Pollution Reduction Scheme (CPRS)

Woodside does not believe it is possible to discuss Australia's competitiveness as an investment destination without making the point that the Government's proposed Carbon Pollution Reduction Scheme (CPRS) presents a significant challenge to investment in the LNG sector.

While issues such as labour, material cost increases and skills shortages all impact the investment climate, they tend to be cyclical and industry has learned to manage these issues to some effect by innovative technology and employment practices. However, the CPRS will

¹⁹ Productivity Commission, Review of Regulatory Burden on the Upstream Petroleum (Oil and Gas) Sector, Research Report, April 2009, p.40

²⁰ *ibid*

²¹ Productivity Commission, Review of Regulatory Burden on the Upstream Petroleum (Oil and Gas) Sector, Research Report, April 2009, Overview

fundamentally impact the economics of LNG in Australia until such time as competitor countries and customer nations adopt similar regimes.

Even with the Government's recent amendments nothing in the proposed CPRS changes the findings of independent economic analysis – under the CPRS Australia's natural gas exports will likely be halved relative to its potential by 2030.²² This will put at risk tens of thousands of future jobs, billions of dollars of investment and the positive contribution Australian natural gas exports could otherwise make to the reduction of global greenhouse gas emissions.

While some Australian LNG projects will likely proceed regardless of the CPRS, the industry's potential will be constrained if Australia imposes carbon costs on its LNG exports ahead of global action imposing similar costs on competitor projects.

Australia's LNG industry is yet to be given certainty that it will be eligible for trade-exposed assistance. Further, the level of assistance beyond 2020 is a source of significant investment uncertainty. Some future Australian LNG projects are likely to be exposed to around 70-80% of the cost of their permit liability, regardless of competitor countries imposing similar regimes. A project like the Browse LNG Development will incur billions of dollars of additional operating costs as a result of the CPRS – costs that our competitors are unlikely to face in the near term.

Woodside submits that Australia should do all it can to encourage the growth of natural gas exports rather than put them at a disadvantage to exports from competitor countries, or worse still, at a disadvantage to less clean fossil fuels such as coal. Adding a carbon cost burden to Australian LNG export projects should be contemplated as and when competitor countries impose similar costs on their natural gas export projects. This will better align the potential for the CPRS to deliver outcomes that would be broadly consistent with those expected under a global emissions trading scheme.

3.8 Infrastructure

Infrastructure discussions are usually focused on roads, rail, ports and access regimes which provide the greatest opportunity for competition and expansion. The specialist technology for the gas sector however, usually dictates that the key infrastructure is the processing plant and jetties for the material offloading facilities.

Woodside's facilities at the Karratha Gas Plant and the Pluto LNG Project are located just north of Karratha and north-west of Roebourne in Western Australia's Pilbara region. While our industrial activities tend to be self-contained, social infrastructure remains a critical part of the safe and successful operation of LNG and pipeline gas facilities.

Karratha and the Pilbara now account for 45% of Western Australia's export income and the town of Karratha has grown to service a population of more than 16,000 people. Woodside's workers live in these communities and our fly-in-fly-out contractors rely on local facilities for services while in town. The well-being of these communities impacts our business directly.

The rapid expansion of the iron ore and LNG business during the recent resources boom stretched these towns (and most others in the Pilbara) beyond capacity, to reveal a decade of under investment by Government in basic community infrastructure and town planning.

Lack of affordable housing for teachers, doctors, childcare workers, hairdressers, shop assistants and the like led to a drop-off in basic services available in town sites. The historic public investment levels and Government policy approach to regional service delivery has seen a loss of public sector staff and competence, particularly in health and education.

In this environment, attraction and retention of staff is a critical business issue. The flow-on impacts cannot be underestimated as companies have responded by implementing fly-in-fly-out

²² Dr Brian Fisher, Concept Economics: A Peer Review of the Treasury Modelling of the Economic Impacts of Reducing Emissions, prepared for Senate Select Committee on Fuel and Energy, 30 January 2009

(FIFO) rosters and bonus packages. By virtue of circumstance, FIFO workers are least likely to become a part of the local community, or to take a long-term view of their careers working in the north-west, which can impact the sustainability of regional centres.

The Liberal National State Government in Western Australia, supported by the Federal Government has recognised the need to invest in Pilbara communities, recently announcing that \$300 million will be spent over four years on land, low-cost housing, health and town amenities. While this investment will begin the renewal of the region, sustained and planned investment from Government and industry will be required into the future.

In working with industry to plan developments Government needs to factor in ongoing investment in social infrastructure to support communities. Proactive regional and town planning can identify the potential for a sustainable future beyond the operations of a specific resource investment and therefore, needs to be encouraged.

Woodside believes industry should continue to play its part, and in some cases, step up to the mark, investing in supporting its workforce. However, Woodside's view is that responsibility for maintaining basic social infrastructure and services at public hospitals and schools or driving future planning, resides with Government. The Australian Government has a key role to play in working with State Government and industry to identify community investment priorities and how best to leverage available resources.

3.9 Ensuring human resource capacity

Woodside's core business is focused on the cleanest fossil fuel – natural gas – which is increasingly likely to be the fuel of choice for power generation and a complementary partner for intermittent renewable energy sources. The growth of our industry is a key pathway to a lower carbon economy.

For LNG it is less about 'transition' for our workplaces and more about building capability and retaining a skilled workforce to drive growth in the natural gas sector. By comparison, industries heavily reliant on high emission inputs are likely to experience a more profound change in transitioning to a low carbon economy.

Woodside ensures it has the human talent to deliver on LNG growth through strategic workforce planning, key skill pool development and by remaining focused on our key pathways to employment such as cadetships, traineeships and the graduate program. We are also actively involved with schools and universities promoting our industry to young Australians in an attempt to attract more people into our industry.

Woodside is continually developing its capability but as LNG is a relatively new industry to Australia (in large scale terms) some capability gap exists at a highly technical and senior level. In some instances, we will recruit temporary, highly skilled overseas workers that enable us to meet our project commitments and importantly, to educate, coach and train our Australian workforce so that we can grow and ultimately rely on having these core skills 'home based' for the future.

Woodside continues to focus and invest in a diverse workforce as one strategy to maximise a potential labour pool. We value diversity and have actively pursued programs that enable us to tap into sectors of the population that have not traditionally played a large part in our business.

Woodside has a number of pathways for employment within the company, including:

- Direct employment;
- Work ready programs;
- Onshore/offshore traineeships and apprenticeships;
- Mirnuwarnigu Yirdiya (Learning Road) Operator Traineeship (MY Program);
- Business administration traineeships and school-based traineeships;

- Indigenous Cadetship Program; and
- Graduate Program.

Four of these programs specifically target Indigenous recruitment - the MY program, Pluto Work Ready Program, Business Administration Traineeships and the Indigenous Cadetship Program. These programs have been developed to maximise opportunities for employment for Indigenous people in the Pilbara, based around our current construction of the Pluto LNG Project and our expansions and operations at the Karratha Gas Plant.

Woodside's approach to Indigenous business participation is continuing to evolve with the implementation of necessary capacity building initiatives and importantly imbedding Indigenous business requirements into the supply chain tender process. Woodside has benefited from recent experience on the Pluto LNG Project and that has provided further expertise in the development of opportunities for Indigenous business participation.

Woodside undertook a targeted contracting strategy for the construction phase of the Pluto LNG Project that has resulted in significant opportunities in Indigenous business participation, training and employment. Woodside demonstrated strong leadership in the contracting approach through the integration of an Indigenous Affairs Management Plan (IAMP) into the tendering process. The Woodside IAMP process required the lead contractor managing the engineering, procurement, construction and project management to submit plans outlining:

- Joint venture opportunities for Indigenous businesses;
- The number of Indigenous businesses that will be sub-contracted in the construction phase;
- The value of contracts awarded to Indigenous business;
- The number of Indigenous people employed by the contractor and sub-contractors;
- The training program to demonstrate the approach to reaching the Indigenous employment numbers;
- How the contractor will resource Indigenous employment initiatives; and
- How the contractor will report against the IAMP submitted.

Woodside's approach has achieved considerable results and demonstrates a successful model of integrating Indigenous employment outcomes throughout the supply chain. The same approach is now being applied to the operation phase of the business. This will provide ongoing benefits to Indigenous people for the life of the project and beyond, as capacity built from participation will provide leverage for further opportunities.

In our experience, optimal Indigenous participation can be delivered through ensuring actions are undertaken early in the project lifecycle, by providing leadership in the supply chain tender process and by identifying agreed key performance indicators between the proponent and contractors.

However, despite recent successes in Pluto, we are still seeing that for many Indigenous people there are barriers to sustained employment. Some of those barriers are reflected in social indicators like the lower level of education attainment, poor health, overcrowding of housing, the associated poor environmental health conditions and high levels of interaction with the justice system.

Government, the community and industry need to continue to work together proactively to reduce these inhibiting social factors to increase the ability for individuals to realise employment opportunities. Woodside currently contributes social support through funding the development and implementation of a range of education programs that operate in Karratha and Roebourne, from primary school through to high school, and we seek to link these programs to future employment outcomes.

It is Woodside's view that Government must ensure that the regulatory and legislative environment is one that encourages continued investment in LNG projects – as investment in projects drives investment in training and skills development in our sector and beyond.

4 Contact

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