



AUSTRALIAN PETROLEUM PRODUCTION & EXPLORATION  
ASSOCIATION LIMITED

# SUBMISSION TO AUSTRALIA'S FUTURE TAX SYSTEM REVIEW

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OCTOBER 2008

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## EXECUTIVE SUMMARY

The Australian Petroleum Production & Exploration Association Ltd (APPEA) is the peak national body representing the oil and gas exploration, development and production industry in Australia. The Association's membership comprise companies that account for an estimated 98 per cent of Australia's petroleum production and the vast majority of exploration, as well as many entities that provide services to the industry.

Petroleum is crucial to the health and economic security of Australia. For the foreseeable future, oil and gas will continue to account for more than 50 per cent of our primary energy needs and has the potential to make a material difference to the energy security of our region. The future health of the industry is integrally tied to investment in both exploration and development activities.

APPEA's submission addresses the role that the sector plays in Australia, the characteristics and some challenges that currently confront the industry, and finally a range of specific matters connected with the fiscal framework are discussed in detail.

APPEA considers that a number of important questions must be addressed in the context of the Review.

### **What major challenges facing Australia need to be addressed through the tax transfer system?**

- International competitiveness to attract investment in the petroleum industry to meet industry and governments' agreed strategic energy needs.

### **What features does APPEA consider should the fiscal system have in order to respond to these challenges?**

- Recognition of the economic challenges that confront long life capital intensive projects; and
- Internationally competitive company tax settings.

### **What are the problems with the current system?**

- Tax distortions between activities;
- Inadequate incentives for exploration and the development of major gas projects;
- Instability from increases in taxation post investment; and
- Policy intentions frustrated by administration.

### **What reforms do we need to address these problems?**

APPEA's submission makes the following recommendations:

#### **1. Investment in Gas Projects**

The Government introduces substantial modifications to the company tax regime as it applies to gas projects in Australia. This could be achieved through a major reduction in the length of asset lives for depreciation or through the introduction of an investment allowance under the income tax regime. The introduction of a three year write-off period for all plant associated with gas production, liquefaction activities and related greenhouse gas storage processes would be one such approach.

2. Exploration Framework

The Government introduces an investment allowance type deduction under the company tax regime for petroleum exploration in frontier areas at a rate of 175 per cent of eligible exploration expenditures. Modifications to the company tax regime be introduced via the adoption of a flow through share mechanism to assist junior exploration companies in raising equity capital to undertake exploration.

3. Resource Taxation Framework

Any decision by governments to review the resource taxation and non-taxation measures address the following:

- project proponents be fully consulted to ensure that the impact of revised measures on individual projects are fully considered;
- impacted industries are fully engaged in the consultation process to assess the Australian and global competitiveness implications of any reforms; and
- a whole of resources sector approach forms the basis of any review of the secondary taxation regime for the resources sector to ensure commodity distortions are not created as a result of any reform process.

4. Administration and Operation of the PRRT Regime

Treasury and the Department of Resources, Energy and Tourism become more actively engaged in providing policy and interpretive guidance on the operation of the PRRT regime with the ATO's role being limited to administrative and compliance issues.

5. Assessment of the Administrative Impact of Taxation Measures

The Review Panel examines the necessity of administrative processes imposed on taxpayers in meeting obligations under the income tax system in circumstances where the risk to revenue is low and compliance obligations are either complex or costly on taxpayers. In particular, an impact statement should be prepared for all tax measures where taxpayers are required to implement structures to comply with provisions under income tax legislation. These impact statements (including the risk to review of their removal) should be reviewed on an on-going basis for each taxation measure.

6. Taxes on Business Inputs

Governments move to abolish or reduce the incidence of charges that apply to business transactions and that when retained, such imposts be levied at a level to cover the administrative costs of undertaking service activities.

7. Goods and Services Tax

The Government periodically reviews the operation of the GST regime to ensure the key provisions remain consistent with the nature of commercial practices in industry and that compliance and administrative obligations do not impose unnecessary burdens on taxpayers where there is minimal risk to revenue.

## SECTION 1: BACKGROUND AND INDUSTRY OVERVIEW

### 1.1 Introduction and Energy Use in Australia

There is a diverse range of companies in the Australian exploration and production industry, ranging from small and medium-sized Australian companies to global corporate entities. Many of the smaller companies have minimal production and are reliant on the equity market to fund exploration in Australia and, increasingly, in other parts of the world.

A number of medium to large-sized Australian companies often have producing assets that fund further onshore and offshore exploration, and many of these companies are also expanding overseas in pursuit of other opportunities. The large international companies, whose Australian interests in many cases represent only a small part of their global portfolios, focus on a diversified range of offshore areas and many are moving into onshore areas with a strong gas focus.

Reliable, secure and competitively priced energy is crucial to industry, our communities and households. It underpins Australia's economy and industrial structure. Within this framework, oil and gas plays a key role. At present, petroleum (oil and gas) accounts for more than 50 per cent of Australia's primary energy needs and is expected to increase.

**Table 1: Share of Primary Energy Consumption in Australia (per cent)**

	Oil	Natural Gas
<b>2005-06</b>	35.5	18.7
<b>2011-12</b>	35.1	20.7
<b>2019-20</b>	34.5	23.1
<b>2029-30</b>	35.5	23.9

Source: ABARE Research Report 07.24 (December 2007)

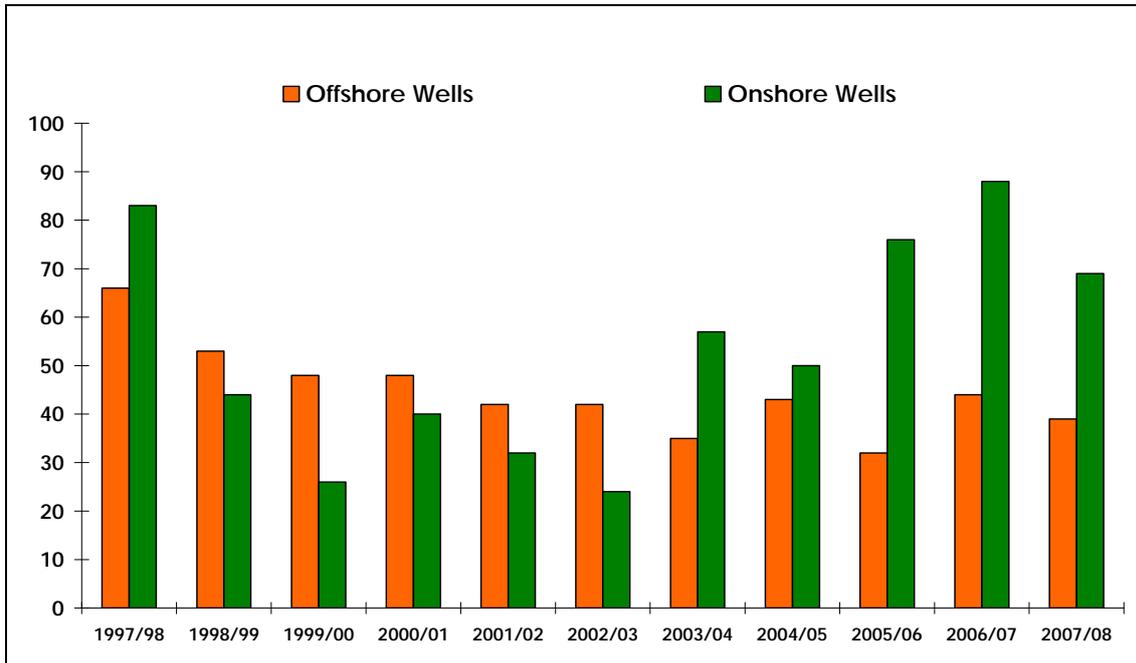
The Australian Bureau of Agricultural and Resource Economics (ABARE) forecasts that the percentage level of oil used in primary energy consumption will remain relatively constant over the next two decades, while the percentage attributable to natural gas is expected to rise from 18.7 per cent in 2005-06 to 23.9 per cent in 2029-30. Meeting these forecasts will depend on a range of factors, a number of which will be discussed later in this submission.

Just as importantly, the industry creates significant wealth for the country, including through the employment of tens of thousands of Australians, underpinning the revenue collections of governments and generating valuable export revenue. A strong, vibrant and growing industry is essential to the on-going health of the Australian economy.

### 1.2 Petroleum Exploration Activity

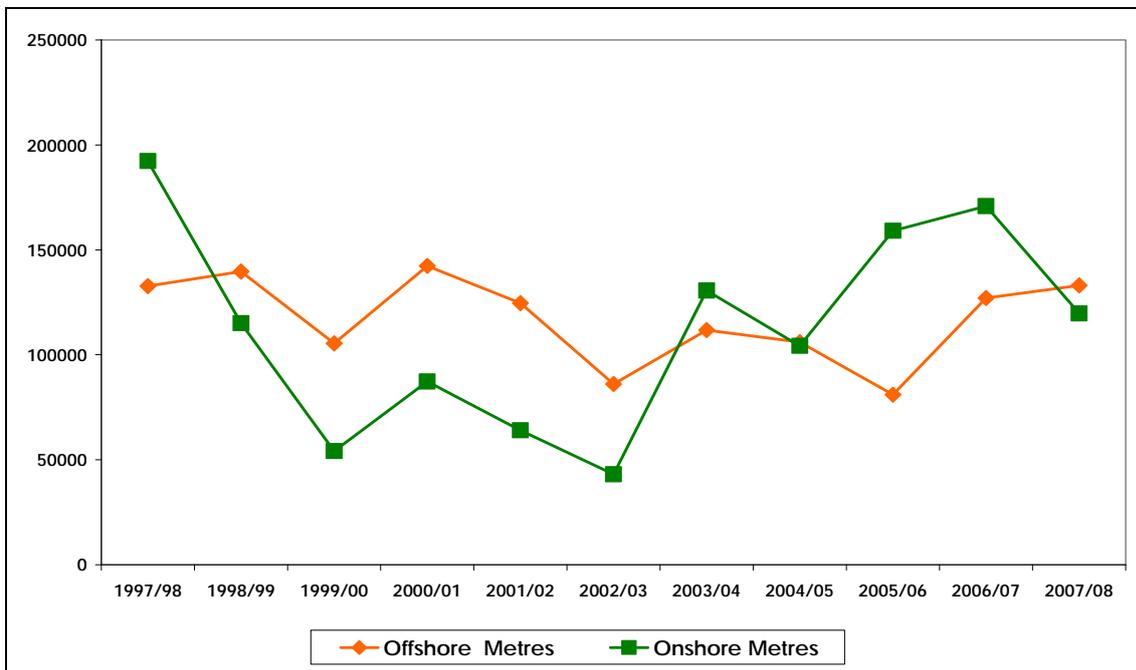
Exploration is a key determinant of future domestic oil and gas production. There are a number of indicators that can be used to measure exploration activity. Charts 1 and 2 highlight the trends in exploration activity in onshore and offshore areas in the period covering 1997-98 to 2007-08. The number of exploration wells drilled offshore has remained relatively flat over the last five years, while the number drilled onshore has fallen.

Chart 1: Exploration Wells Drilled (1997/98 to 2007/08)



Source: ABS, Geoscience Australia, APPEA

Chart 2: Exploration Metres Drilled (1997/98 to 2007/08)



Source: ABS, Geoscience Australia

While the value of expenditure is the most often cited measure of exploration activity, it is arguably the most unrepresentative in terms of the actual quantum undertaken. A simple index of the value of exploration expenditure undertaken divided by the number of exploration wells drilled highlights the dramatic increase in costs associated with exploration activity.

**Table 2: Exploration Expenditure Per Exploration Well Drilled (\$ million)**

	Offshore	Onshore
1997/98	10.4	2.8
1998/99	12.6	4.1
1999/00	12.3	4.2
2000/01	17.7	4.4
2001/02	17.1	5.1
2002/03	19.1	8.0
2003/04	20.4	4.0
2004/05	18.0	5.4
2005/06	28.3	4.7
2006/07	39.3	5.7
2007/08	65.2	7.2

Source: Derived from Geoscience Australia/ABS data

As seen in Table 2, the average outlay on exploration expenditure per exploration well drilled in offshore Australia has risen from \$10.4 million in 1997/98 to \$65.2 million in 2007/08, while the cost onshore has risen from \$2.8 million to \$7.2 million. Suggestions that rises in exploration expenditure reflect an increase in the overall exploration effort in Australia are wrong.

### 1.3 Gas and Liquids Production

#### *Natural Gas*

Australia has vast reserves of natural gas that remain largely undeveloped. Opportunities exist to develop new gas based projects, including through the export sale of gas (both conventional and coal seam gas). Export gas sales have the potential to more than double over the next decade.

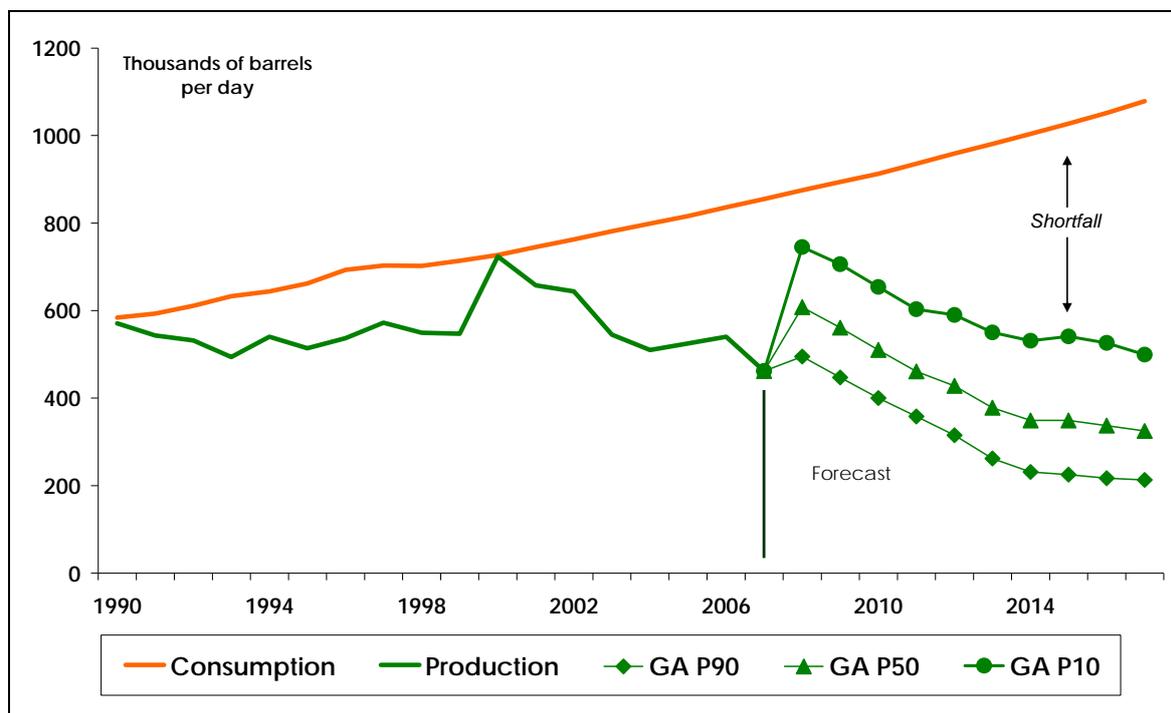
ABARE forecasts relatively strong growth in domestic gas production (approximately 2.6 per cent per year), however challenges such as high development costs, limitations on interconnecting pipelines, fiscal imposts and competition from competing fuels (including the Mandatory Renewable Energy Target scheme) in one way or another will impact on the growth of this sector.

Not all reserves are currently commercial and therefore may not be able to be developed. The long distances involved in transporting some of this gas to market has a significant impact on the economics of gas developments. The emerging growth of coal seam gas (CSG) as a resource that is capable of meeting Australia's domestic and global energy demand also presents new opportunities. Under appropriate fiscal and policy settings, Australia's gas reserves may also be capable of supplying sustainable and cleaner alternative fuels into a range of markets.

#### *Petroleum Liquids*

Chart 3 highlights historical crude oil and condensate production, Geoscience Australia's production forecasts for crude oil and condensate, together with ABARE's forecast level of consumption (demand). The Geoscience Australia forecasts are based on high (P90 - 90 per cent level of success), medium (P50 - 50 per cent level of success) and low probability cases (P10 - 10 per cent level of success).

**Chart 3: Crude Oil and Condensate Production and Demand**



Source: ABARE, Geoscience Australia (GA), APPEA

Even assuming the most optimistic scenario (P10), petroleum liquids production is expected to fall well short of domestic demand – as noted below, this will have implications for the nation’s trade position.

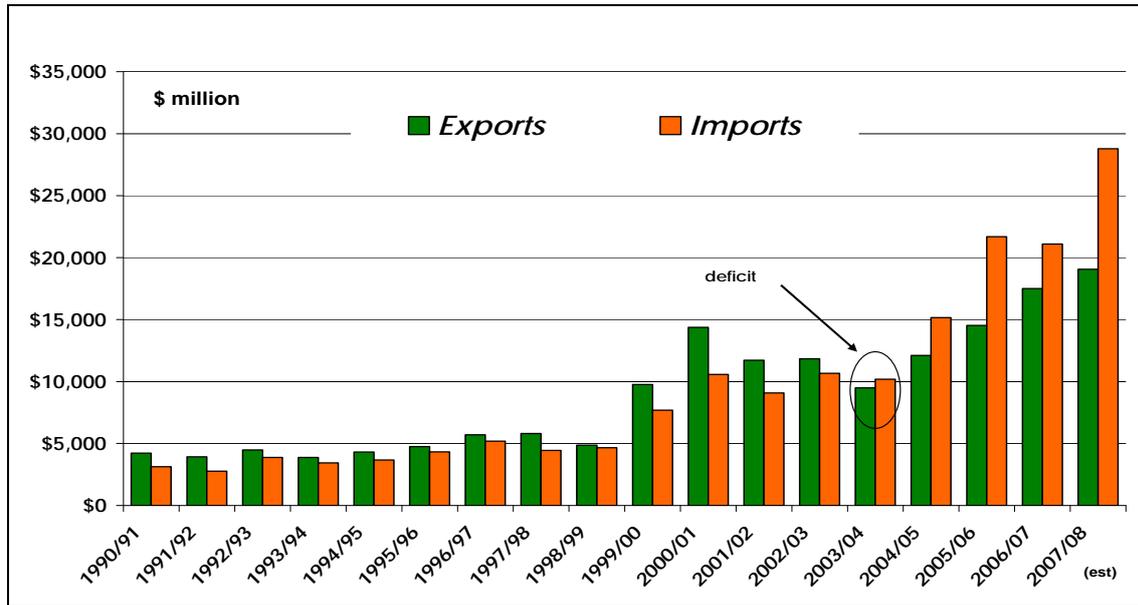
### 1.4 Trade in Petroleum and Petroleum Products

Until 2002/03, Australia had been a net exporter of oil, gas and derived petroleum products. This allowed Australia to generate valuable export earnings and therefore positively contribute to our overall trade position. The ability of domestic production to replace costly imports of petroleum has also been significant.

There has been a turnaround in this surplus position in the last five years as a consequence of both a rise in international oil prices and a fall in the level of domestic crude oil production. This has led to the emergence of a growing trade deficit.

Chart 4 includes petroleum liquids (crude oil and condensate), gas (LPG and liquefied natural gas) and petroleum products. While Australia was in surplus prior to 2003/04, the net deficit position has grown to now exceed more than \$10 billion per annum. It is expected that this deficit will continue to increase, notwithstanding a possible rise in the level of export gas (LNG) in the coming years.

Chart 4: Trade in Petroleum and Petroleum Products



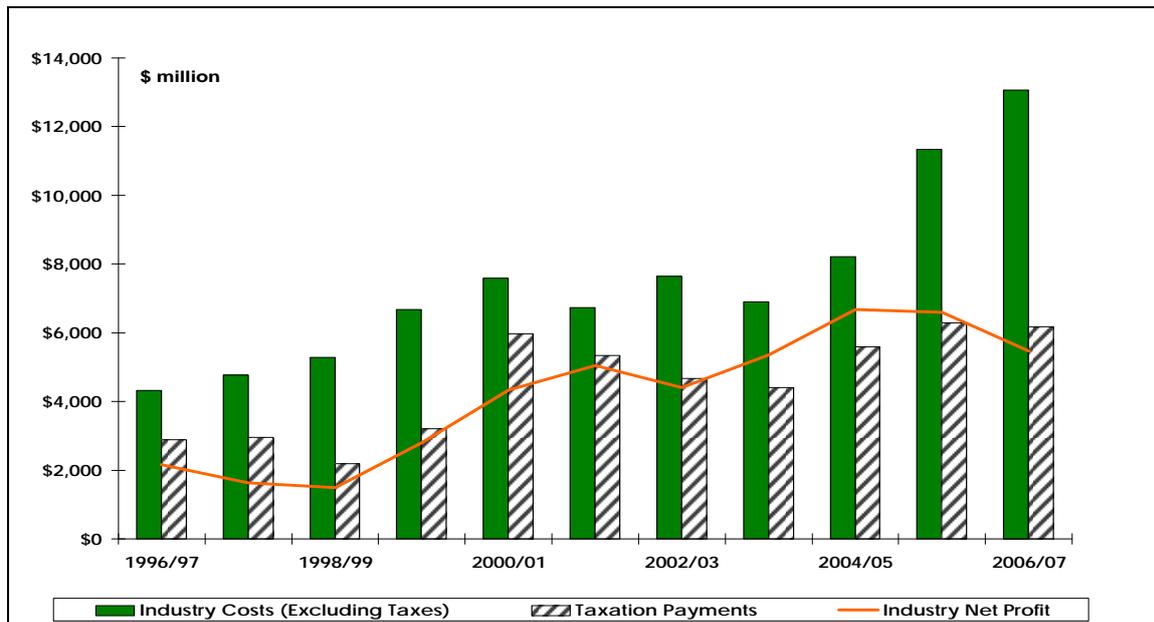
Source: ABARE

APPEA estimates that the annual trade deficit in crude oil and condensate could realistically grow to exceed \$25 billion per year by 2020.

### 1.5 Industry Performance and Costs

The recent strength in commodity prices has coincided with a period of rapid cost growth in the industry. Annual financial data compiled by APPEA highlights the unprecedented increase in industry costs over the last four years, while industry profits have remained relatively flat (see Chart 5).

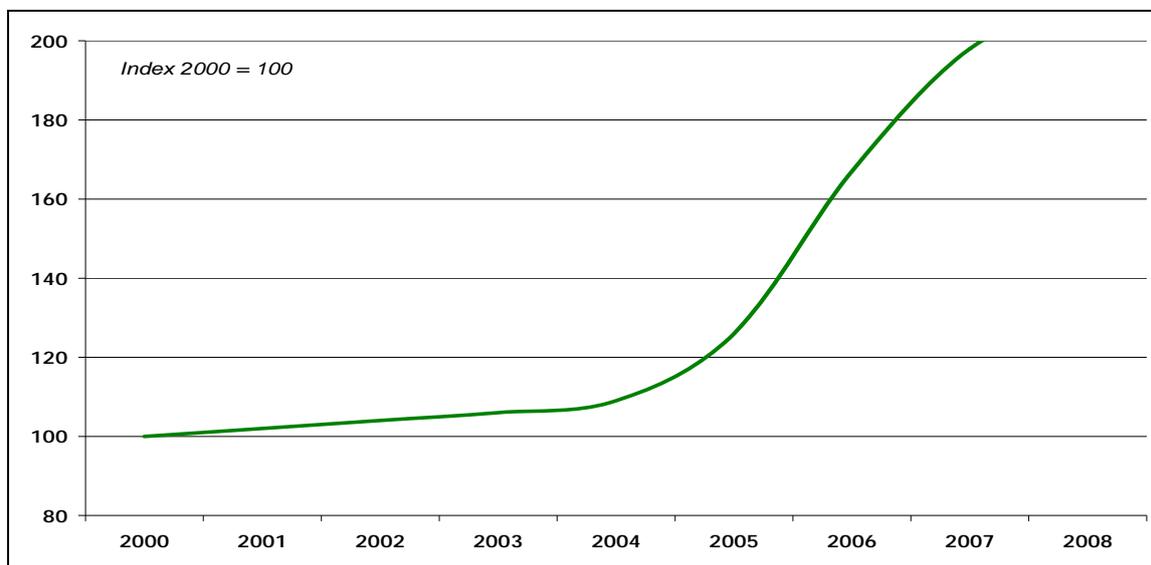
Chart 5: Industry Financial Performance and Costs



Source: APPEA Financial Survey

In addition, the Cambridge Energy Research Associates (CERA) also compiles an index of upstream industry capital costs. Dramatic growth has been recorded in the period 2004 to 2007 (see Chart 6). This confirms the trends recorded in the growth in industry costs highlighted in the APPEA data.

**Chart 6: Upstream Capital Cost Index**



Source: Cambridge Energy Research Associates

This situation is further illustrated by a recent analysis by Wood Mackenzie and Deutsche Bank that dramatically demonstrates the rise in capital costs associated with LNG projects.

**Slide 1: LNG Project Cost Analysis**

6 Deutsche Bank Energy Seminars – March 2008

**LNG capital costs have risen significantly in recent years...**  
(Indicative costs for guidance – actual costs will vary by project)



**Upstream**

➡



**Liquefaction**

➡



**Shipping**

➡



**Re-gas**

~ US\$300-600m+ per installed mmtpa <b>Current Outlook</b>	~US\$700-1000m+ per installed mmtpa (becoming increasingly hard to predict)	New 155,000 m <sup>3</sup> ship costs ~ US\$240m* New 200,000+m <sup>3</sup> ship cost ~ US\$285 to 330m*	~US\$100m per 100 mmcf of capacity
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← Jul '07: Pluto capex = US\$10.4bn for a 4.8 mmtpa plant = US\$2175/t →

~ US\$150-500m per installed mmtpa <b>Early 2005 Outlook</b>	~US\$200-275m per installed mmtpa	New 145,000 m <sup>3</sup> ship costs ~ US\$170m* New 200,000+m <sup>3</sup> ship cost ~ US\$205m*	~US\$50 per 100 mmcf of capacity
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← Dec '05: QG-3 capex = US\$4.4bn for a 7.8 mmtpa plant = US\$564/t →

\*Delivered cost is approx. 10% higher

Originally Presented at a Deutsche Bank Investor Day in London 11/01/08 Source: Wood Mackenzie Estimates




## SECTION 2: THE AUSTRALIAN OIL AND GAS INDUSTRY

### 2.1 A Future Vision for the Industry

Together with a range of government and non-government stakeholders, the industry is undertaking a coordinated initiative with a view to maximising the potential contribution that the petroleum exploration and production industry can make to the well-being of Australians and the economy. "Platform for Prosperity: Australian Upstream Oil and Gas Industry Strategy – Strategic Leaders' Report" (the Strategic Leaders' Report) was released in April 2007 and followed a period of detailed consultations with many interested parties. A range of targets and options were identified as part of the Strategy, a number of which form the basis of the recommendations contained in this submission. A copy of the report can be obtained from [www.appea.com.au](http://www.appea.com.au). The key targets jointly agreed are as follows:

*In the decade to 2017:*

- *Oil and condensate production as a proportion of liquid fuels consumption is, on average, maintained at the 2006 level of 57 per cent or better.*
- *LNG production capacity increases from 20 million tonnes a year in 2008 to at least 50 million tonnes a year.*
- *Natural gas use for industrial purposes and as a competitive feedstock for resources processing doubles.*
- *In a competitive electricity market, 70 per cent of all new electricity generation capacity installed in Australia is gas fired.*

Enhancements to policy settings, including fiscal parameters, are important elements in aiding the development of the nation's petroleum resources.

The oil and gas industry is arguably one of Australia most capital intensive sectors, with tens of billions of dollars of capital needing to be spent in the next two decades if frontier exploration is to expand and new oil and gas projects are to be developed. Expansion of Australia's LNG capacity, for example, from the current level of around 15.5 million tonnes per annum (mtpa) to the industry target of 50 mtpa by 2017 will require new capital investment of many billions of dollars. Establishing and maintaining an economic framework that is conducive to investments of this magnitude is essential for the industry to deliver the potential economic gains to Australia.

**"A Rudd Labor Government will:**

- **Encourage the development of the gas industry to open up additional supply for export and domestic use.**
- **Support the increased use of gas as a transitional fuel to meet our energy needs as we move to a more carbon constrained economy."**

*Labor's Plan for a Stronger Resources Sector, Election 2007 (Senator Chris Evans, Shadow Minister for National Development, Resources and Energy)*

Reaching the gas targets in themselves would have significant economic and social benefits for Australia. Modeling commissioned from economic consultants CRA International and conducted by Access Economics utilising their Access Economics General Equilibrium Model (AE-GEM) show that if Australia achieves the targets, we can expect:

- an increase of between \$13 billion and \$55 billion in GDP in net present value terms which is equivalent to adding between 0.24 and 0.31 percentage points to Australian GDP growth in 2017;
- an increase in real consumption of between \$500 million and \$21 billion in net present value terms over the period to 2017;
- the generation of new jobs in the oil and gas and construction industries – in 2012 at the height of the construction boom expected to be associated with the strategy 52,000 new jobs will be generated;
- the diversification of Australia's energy economy with increased penetration of gas in the domestic manufacturing industry; and
- a major boost to remote regional economies (particularly in Western Australia, Queensland and the Northern Territory).

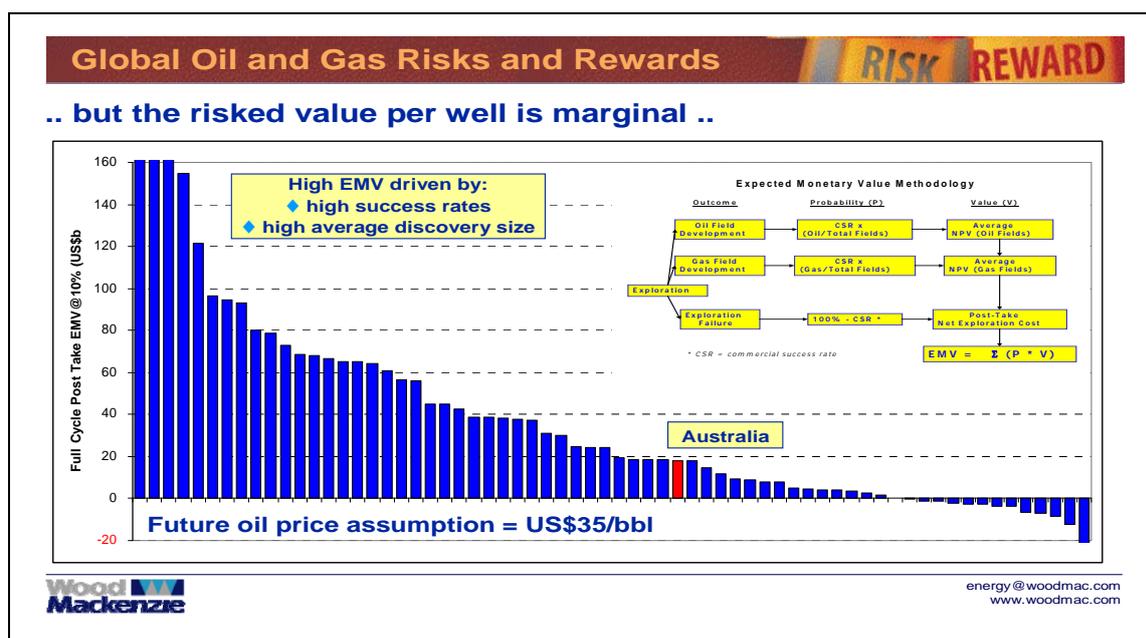
The challenge is significant, however the rewards are enormous.

## 2.2 Australia as a Petroleum Exploration and Production Province

Numerous factors influence a company's decision to explore and develop resources, and therefore a country's ability to attract investment funds. A tool frequently used for comparing the relative attractiveness of competing international investment alternatives is the 'Expected Monetary Value' (EMV) analysis. EMV estimates the full risked value of an exploration decision, taking into account not only tax terms, but also the technical and commercial environment, geological prospectivity, and the risks that are applicable to each region.

Exploration companies often apply this technique in allocating exploration funds. Chart 7, which was prepared by Wood Mackenzie, indicates that Australia ranks relatively poorly compared to competitor nations in terms of overall attractiveness for exploration. The analysis measures (and compares) the approximate value associated with drilling an exploration well in different countries.

Chart 7: Risk Ranking – 'Expected Monetary Value' of Exploration Decisions



Source: Wood Mackenzie

On a commercial success rate basis, the offshore Australia region ranked 41st globally when compared to other countries. Wood Mackenzie also estimates that offshore Australia's success rate for commercial oil discoveries was around 6 per cent (that is on average, one in fifteen exploration wells drilled in the study period resulted in a commercial petroleum discovery in offshore Australia), compared to a global average success rate of 17 per cent. In addition to the generally low success rate, the average commercial discovery size in offshore Australia is also small compared to other regions.

To-date, much of the exploration activity undertaken in Australia's offshore region has been in shallow water mature basins, with field recovery sizes generally becoming smaller. The discovery of significant new accumulations will to a large extent be dependent on exploration in new basins (both onshore and offshore), where the risk/reward balance is fundamentally different.

**"Well there's a whole debate about how we provide extra incentive for exploration and it's very important, given the volumes of oil that we are importing, that we put in place a national energy security policy. It is simply stunning that for the past twelve years the previous government didn't come to grips with all of the questions involved in energy security. We're very serious about doing that which is why we've got that audit in place on the way to producing a national energy security policy."**

*Comments by the Hon Wayne Swan, Federal Treasurer, 18 August 2008, Radio Station 5AA*

Geoscience Australia undertook an analysis as part of the Industry Strategy process to review the number of exploration wells that had been drilled in 'frontier' areas.

**Table 3: Exploration Wells Drilled in Frontier Areas**

	Offshore	Onshore
1996	1	2
1997	0	5
1998	0	5
1999	0	3
2000	1	2
2001	1	1
2002	2	1
2003	4	1
2004	1	3
2005	2	4
2006	1	1
2007	0	5
2008*	0	3

*Source: Geoscience Australia, unpub. data.*

*\* data as of September 2008.*

As Table 3 demonstrates, drilling in frontier areas averaged around one well per year for offshore areas and less than three onshore wells per year between 1996 and 2007. The data suggests that little activity is being undertaken in frontier areas and therefore our knowledge of the petroleum potential of Australia's vast unexplored basins remains largely unknown.

## 2.3 The Role of Natural Gas as a Low Greenhouse Gas Energy Source

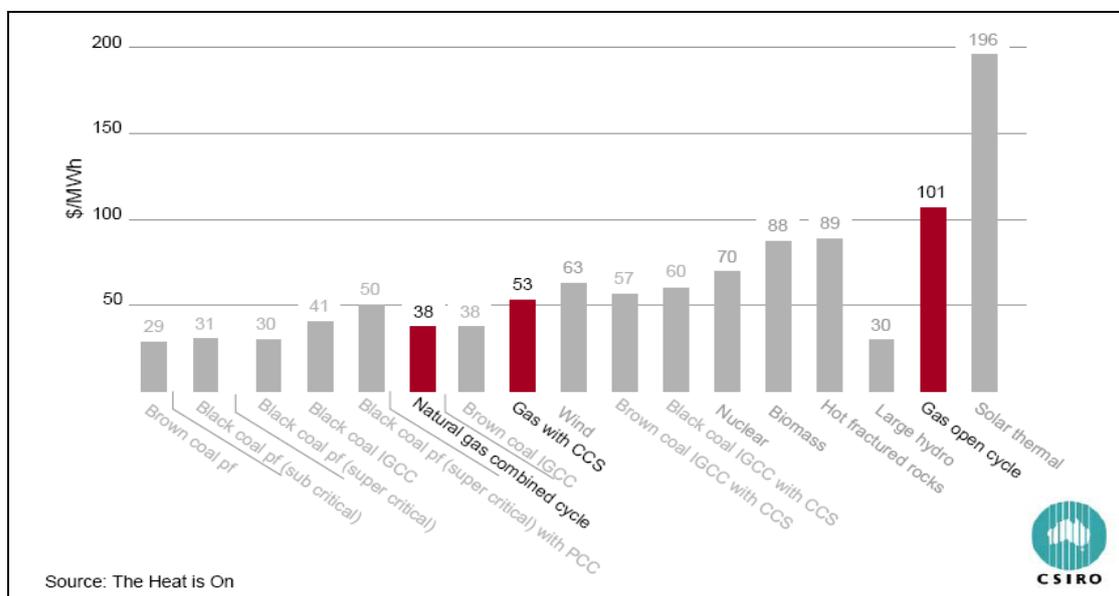
### *The Domestic Use of Natural Gas*

Governments around the world, including in Australia, have recognised that for the foreseeable future, the world economy will remain dependent on fossil fuels. There is an opportunity for Australia to generate significant additional national economic, environmental and social benefits from its substantial natural gas reserves including via:

- the creation of a less carbon intensive national electricity market. In contrast to longer-term possibilities around 'low emission' electricity generation technologies, natural gas technologies available today produce only 30 to 50 per cent of the emissions produced by current coal technologies in generating electricity. According to the Commonwealth Scientific and Industrial Research Organisation (CSIRO), current generation coal fired power stations produce between 800 and 1,300 kg of CO<sub>2</sub> per megawatt hour (MWh) of generation while a combined cycle gas turbine (CCGT) power station produces around 350 to 360 kg/MWh;
- an expansion of the use of gas in resource processing, with consequent reduction in the carbon intensity of the resource processing sector; and
- development of alternative transport fuels to enhance supply reliability and lower carbon intensity.

In addition to its greenhouse friendly nature, natural gas represents a cost competitive energy source. This is particularly so when you consider the generation costs of natural gas compared to other energy generation technologies, particularly coal. Chart 8 shows the cost differentials between current energy sources.

**Chart 8: Estimated Electricity Generation Costs (Australia)**



### *The Role of Gas as a Global Energy Source*

Australia's LNG industry is in a unique position not only to contribute substantially to the economic development of the nation but also to help minimise the growth of greenhouse gas emissions in the Asia-Pacific region. The vast reserves of natural gas located in close proximity to growing Asia-Pacific markets make Australia well-placed to positively assist in meeting the global climate change challenge while substantially contributing to Australia's economic growth.

**“The challenges of providing a stable and internationally competitive investment framework to underpin the long-term development of more of Australia’s gas resources for the benefit of all Australians will be considered by the taxation review.”**

*The Hon Martin Ferguson AM MP, Minister for Resources and Energy, Press Release, 14 May 2008*

The greenhouse benefits of LNG as a clean burning fuel source are well established and have long been recognised, including by the Australian Government. For example, in the report, *Australian Liquefied Natural Gas (LNG) – Clean Energy for a Secure Future*, the Minister for Resources and Energy, the Hon Martin Ferguson AM MP, noted:

*The technical, economic and environmental advantages of liquefied natural gas (LNG) have made it a global fuel of choice.*

*The Australian, Western Australia and Northern Territory Governments, and the industry, share a vision for a strong, internationally competitive LNG industry.*

More recently, the Prime Minister put on record his support for the industry. At a media conference in Darwin on 24 July 2008, the Prime Minister noted:

*... the Australian Government is a big believer in the long-term of LNG and in the expansion of LNG in the future.*

For now and for a considerable time into the future, LNG offers a greenhouse advantage in that it is low in emissions compared to other fossil fuels.

#### **What is Liquefied Natural Gas (LNG)?**

Liquefied natural gas (LNG) is natural gas that has been cooled to the point that it condenses to a liquid, which occurs at a temperature of approximately -161°C and at atmospheric pressure.

Liquefaction reduces the volume by approximately 600 times, making it more economical to transport between continents in specially designed ocean vessels. LNG technology makes natural gas available throughout the world.

On a global lifecycle basis, the production, transport and use of LNG generates significantly lower emissions per unit of delivered energy compared with alternative fossil fuels. A 1996 study by CSIRO found that North West Shelf LNG, when used for electricity generation in Japan, produced lifecycle emissions of approximately 470 kilograms of carbon dioxide equivalent per megawatt hour equivalent (kg CO<sub>2</sub>-e/MWh-e). This was substantially lower than emissions generated from oil produced from the Middle East (around 700 kg CO<sub>2</sub>-e/MWh-e) or coal from the east coast of Australia (around 830 kg CO<sub>2</sub>-e/MWh-e).

This work has been updated and validated in 2008 through a report commissioned from WorleyParsons. The study provides a comparison of Australian LNG exports from the North West Shelf Project with Australian east coast black coal exports in terms of lifecycle greenhouse gas emissions from extraction and processing in Australia through to an end use of combustion in China for power generation. It shows that for every tonne of CO<sub>2</sub>-e emitted in LNG production within Australia, between 5½ and 9½ tonnes of emissions from the coal alternative can be avoided globally

This means that the benefits to Australia and internationally from the greater use of gas as a lower greenhouse gas emitting energy source are considerable

## 2.4 Challenges to Realising Australia's Petroleum Growth Potential

Oil prospectivity in Australia is generally perceived to be poor with relatively low discovery rates and small average field sizes. Gas prospectivity, however, is good. Despite this, large gas fields remain undeveloped decades after discovery and new gas discoveries are often remote from markets and infrastructure and therefore difficult to commercialise. These undeveloped fields are often referred to as 'stranded gas'. Fiscal measures are necessary to encourage exploration in frontier areas and to improve the economics of many gas projects.

To date, Australia has been regarded as a relatively attractive petroleum investment environment and we have developed a reputation as being a sound place to do business, encouraging global oil companies to direct a part of their activity and investment to Australia. But Australia's relatively lower sovereign risk is accompanied by lower returns and margins. In addition, oil project developments have tended to be in deeper water and are more technically challenging.

The large capital requirements, long construction periods and long payback periods associated with LNG projects also increase Australia's risk profile. In short, global competition for petroleum investment capital is increasing and there are many alternatives. Ensuring a competitive fiscal framework is a critical ingredient for maintaining and improving on Australia's overall global competitive position as an attractive investment destination.

**"FIT (federal income tax) is payable at 30% of net profits, which is gross revenue less operating costs, royalty and excise (if applicable) and depreciation of capital costs. Under current rules, capital costs are depreciated over 15-20 years, which is among the slowest depreciation schedules for upstream capital expenditure anywhere in the world. Most fiscal regimes provide for depreciation schedules of between 2 and 10 years for upstream capital expenditures."**

*Wood Mackenzie: Upstream Insights (Asia Pacific), November 2005 p6.*

The future contribution of the industry will largely be determined through a combination of factors, ranging from successful exploration, technological developments that will unlock the full potential of new and existing discoveries and the capturing of new market opportunities. In order to realise the industry's potential, challenges and opportunities must be grasped by governments (on behalf of the community) and industry alike.

The potential rewards available to Australia through efficient and timely development of the nation's petroleum resources are significant and will only result from the combined efforts of governments and industry. Industry must recognise the framework set by governments' policy parameters, and governments must understand the nature of commercial decision making that will result in Australia attracting the maximum and most timely investment interest.

Factors that will influence future growth of the industry in Australia include:

- the level of exploration in the vast, high-risk frontier regions of Australia at a time of greatly increased exploration costs;
- rapidly declining domestic oil production, with the consequent negative impact on the nation's trade position;

- growth in export opportunities for gas in an increasingly competitive and dynamic global supply market;
- the competitiveness of gas with other fuels and its ability to increase its penetration in domestic markets—particularly on the east coast;
- the increased national and global focus on climate change policy;
- more rigorous community expectations in relation to safety and environmental performance;
- the availability of skilled labour; and
- the need for, and funding of, a coordinated program of research and technology development to underpin future industry competitiveness.

## 2.5 The Role of Junior Oil and Gas Exploration Companies

There is a diverse spectrum of participants in the upstream industry, in which the small and medium-sized companies play a crucial role. Small Australian-based companies make up the largest group in the industry. Some have a small amount of production, but many are reliant on the equity market to fund exploration in Australia and around the world.

The role played by junior petroleum exploration companies is crucial to the overall health and vitality of the sector. While exploration by junior entities represents a relatively modest proportion of the total pool of funds spent on exploration, it represents a key element of the overall exploration effort.

The diversity in size and activity among participants in the Australian petroleum industry has been a major contributor to its success. From small explorers to the large international companies, the full range of interests must continue to be actively involved if the industry's potential and economic contributions are to be maximised.

A survey undertaken by APPEA in 2007 to review the destination of funds expended by Australian based/listed companies on exploration indicated that nearly 50 per cent of companies that raised funds for exploration in Australia directed all or part of those funds to exploration destinations outside Australia (around a quarter expended no funds in Australia at all). The vast majority of these companies would be junior and mid-cap companies. This very high number highlights the potential that exists for increasing funding in Australia with a policy framework that rewards the allocation of funds to domestic exploration opportunities.

**“We have already committed to a flow through share scheme which will help small and mid sized explorers, and we are now looking at a broader range of incentives to promote exploration.”**

*The Hon Martin Ferguson AM MP, Minister for Resources and Energy, Address to CEDA, 5 June 2008*

### *A Possible Solution – A Flow Through Share Framework*

For companies that have a tax liability, the ability to immediately deduct such costs against other income provides an important form of cost relief. Entities that do not have (or have insufficient) income are therefore required to carry forward potential tax benefits for exploration expenditure which may never be used. As a direct consequence, this inability to obtain a tax deduction significantly reduces the after tax value of exploration activity undertaken by these companies.

A flow through share type initiative is one option that has been canvassed as a mechanism to address the tax induced disadvantage that can confront junior explorers. It provides for a tax rebate or deduction to the investors that hold shares in these types of

companies. The system has been used with considerable success in Canada where investment in bona fide exploration has increased substantially.

Industry bodies representing companies engaged in petroleum and mining exploration activities across the Australian resources sector have been working collaboratively to develop a regime that it is considered will have the same impact on Australian exploration as it has done in Canada, but while also addressing the integrity concerns of government.

Further details of a proposed model will be raised with the government separately, but it is expected it will be within the following general parameters:

- it would be based on the concept of an 'exploration tax credit' for Australian resident shareholders of Australian public companies;
- it would be focussed towards, but not limited to 'frontier exploration';
- the framework would be based around the Australian franking system;
- the existing definition of 'exploration' would form the basis of defining eligibility;
- the credit would be based on the company tax rate to avoid potential distortions;
- and
- a company would forgo a deduction in favour of the party receiving the credit (ie there would be no double deductions).

## SECTION 3: THE AUSTRALIAN FISCAL FRAMEWORK AND THE PETROLEUM INDUSTRY – ISSUES AND RECOMMENDATIONS

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### 3.1 General Taxation Principles

In the context of any discussion in relation to possible reforms to the Australian taxation system, it is important that core principles are established by which specific taxation settings can be judged. It is generally accepted that the following three criteria should be used.

*Equity* - those in relatively similar economic positions should be treated equally, while those in different circumstances should be treated in proportion with their ability to pay.

*Efficiency* - the distortionary impact of taxes, or the likelihood that taxes may vary investment decisions (both in domestic and international contexts) should be minimised.

*Administrative Simplicity* - the cost of complying with, or collecting taxes, should be minimised. A tax system should also be as simple as possible so ensuring that its meaning is clearly conveyed.

In addition to the above, the increasing mobility of capital and funds between nations dictates that the question of the *international competitiveness* of the taxation framework must also be considered. A further defining feature is *stability*. While industry fully recognises the rights of governments to set and adjust fiscal settings, it is nonetheless important that investments that have long lags between outlays (which can often involve billions of dollars) and project returns are provided with taxation framework that respects the long term nature of such investments.

It is inevitable the variations in the tax mix that is adopted across the different governmental jurisdictions in Australia will lead to outcomes that will to varying degrees conflict with the above principles. It is therefore important that outcomes are sought that attempt to minimise distortions.

While the petroleum exploration and production industry is subject to normal company and indirect taxes, it is also subject to a range of special taxes and charges (such as the petroleum resource rent tax, production excise and petroleum royalties) which are resource taxation instruments used by various governments in Australia. These charges add an additional layer of complexity in terms of assessing the impact of the overall framework using the above criteria, as well as the fact that they directly impact on profitability and investment decisions.

### 3.2 Resource Taxation in Australia

Under the terms of the 1979 Offshore Constitutional Settlement (OCS) and the division of powers provided for under the Australian Constitution, the power to impose taxation and other charges on oil and gas production is divided between the Commonwealth and States/Territories. The Commonwealth holds title for all areas seawards of the outer boundary of the territorial sea (often termed 'offshore waters'), while the States/Territories control areas landwards of this boundary.

At present, the resource (secondary) taxation framework that applies to petroleum production in Australia is broadly as follows:

- all 'offshore' projects, with the exception of those production licences derived from Exploration Permits WA-1-P and WA-28-P, are subject to the provisions of the *Petroleum Resource Rent Tax Assessment Act 1987*;
- production sourced from licences derived from Exploration Permits WA-1-P and WA-28-P are subject to Commonwealth crude oil excise and Commonwealth petroleum royalty; and
- onshore production and that sourced from projects located in submerged lands under state jurisdiction is subject to Commonwealth crude oil excise and royalty under the relevant state/territory jurisdiction.

#### *Petroleum Resource Rent Tax (PRRT)*

The petroleum resource rent tax (PRRT) is the primary resource taxation mechanism that the Australian Government uses to tax oil and gas projects in Australia.

PRRT was introduced in the mid 1980s for new projects and replaced the existing crude oil excise and Commonwealth royalty systems that were in place at the time. The regime was expanded and significantly modified in the early 1990s. While the regime has undergone a number of structural modifications, many of the detailed provisions remain unaltered. In the meantime, the industry has gradually changed and grown from that which was typical at the time of the introduction of the regime. In addition, the intervening 20 years has provided taxpayers, administrators and policy setters with considerable hands-on experience with the way the system operates, while the number of taxpayers required to lodge returns under the regime has gradually risen.

PRRT is an economic based tax with the following basic features:

- it is assessed on a project basis;
- liability to pay PRRT is on a producer/company;
- it is assessed at a rate of 40 per cent;
- is payable quarterly on an instalment basis;
- a liability is incurred when all allowable expenditures (including compounding) have been deducted from assessable receipts;
- assessable receipts include the amounts received from the sale of all petroleum (a 'marketable petroleum commodity');
- deductions include capital and operating costs that relate to the petroleum project, and are deductible in the year they are incurred. Deductible expenditures include those related to exploration, development, operating and closing down activities;
- expenditures which are non-deductible include financing costs, some indirect administration costs, income tax and cash bidding payments; and
- undeducted expenditures are compounded forward at a variety of set rates depending on the nature of those expenditures and the time that they are incurred prior to the application for a production licence.

#### *Petroleum Royalties*

While the specific details of the various royalty regimes vary across jurisdictions in Australia, the basis features are as follows:

- royalty is levied on a licence area basis;
- liability to pay royalty is on the net wellhead value of production;
- it is levied at rates of between 10 and 12 ½ per cent of the wellhead value;
- limits often apply to deductions such that a minimum royalty liability must be paid in any single period (usually from the commencement of production); and
- costs incurred between the wellhead and the point of sale (ie post wellhead costs) are deducted from gross receipts to ascertain the wellhead value. Deductible

costs can include the post wellhead depreciated value of capital equipment, an allowance for the cost of capital, operating expenses and crude oil excise (in some cases).

*Crude Oil Excise*

Crude oil excise is calculated as a percentage of the volume weighted average of realised f.o.b price (VOLWARE) made from a designated region. Crude oil (and condensate) is subject to excise in a manner such that higher percentage rates apply to higher levels of production or liftings from each prescribed production area.

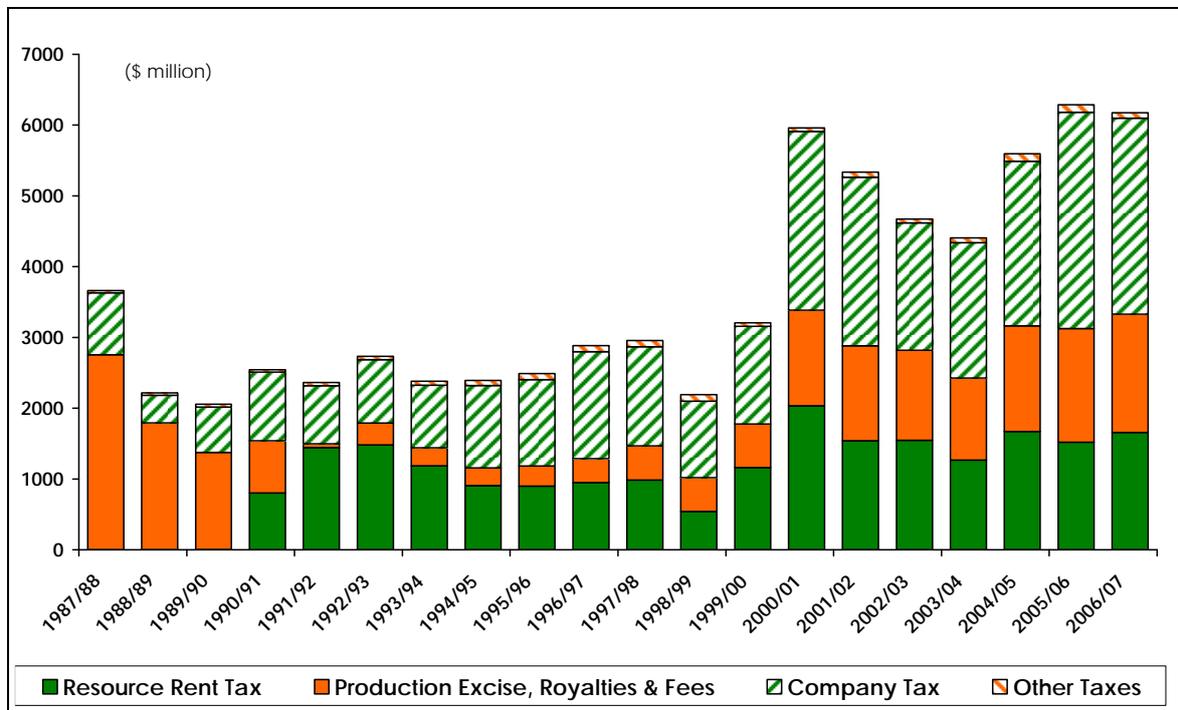
The excise scales that apply to production from each prescribed production area are dependent on the date of discovery and/or the commencement of production.

In addition, the current crude oil excise provisions allow for the following:

- the exemption from excise of the first 4,767.3 megalitres or 30 million barrels of cumulative crude oil production from each petroleum field where excise applies; and
- the exemption from excise of all gas production, including liquefied petroleum gas, liquefied natural gas and commercial gas/ethane.

Chart 9 outlines the estimated level of taxation payments made by the industry over the last two decades. The coverage of the Bass Strait project by the PRRT regime in 1990 is highlighted by the commencement of payments under that regime in 1990/91.

**Chart 9: Estimated Petroleum Industry Taxation Payments**



Source: APPEA Financial Survey

*The Resource Taxation Treatment of Natural Resource Assets*

The Background Paper released by Treasury in August to support the review describes and provides commentary on the array of complex tax and non-taxation arrangements that

are in place in relation to the mining and petroleum sectors (p.270-5). The paper notes that there is wide range of regimes in place, with some based on profits and others being levied on an ad valorem basis.

**“The government’s announcement that the Henry review would include tax issues facing the gas sector was supported by the committee. The committee agreed that the taxation regime is important for investment and long-term development of the industry. It recommends the government considers other incentives to encourage investment.”**

*Standing Committee on Economics, Excise Legislation Amendment (Condensate) Bill 2008 Report, August 2008 (p.28)*

It is important that such settings do not act to create distortions between different resource commodities that may be supplying into similar markets. A specific taxation issue that was identified by APPEA in the Strategic Leaders’ Report was the role played by fiscal settings in the domestic energy market. In particular, differential taxation treatments that apply to coal and gas production have the potential to impact on the relative ability of these fuels to compete in the domestic electricity market. This is further complicated as a result of the lower burdens that apply to renewable energy supply sources, plus the application of 20 per cent Mandatory Renewable Energy Target.

It is important that Governments recognise that significant investment decisions have been made on the basis of underlying resource taxation frameworks and that it is essential for governments to consider the impact that any subsequent changes will have on producer returns, project certainty and future investment decisions. Fundamental changes to a taxation framework following project or investment decisions inevitably creates investor uncertainty and in extreme cases, alters perceptions of risk within countries.

**Recommendation:** Any decision by governments to review the resource taxation and non-taxation measures address the following:

- project proponents be fully consulted to ensure that the impact of revised measures on individual projects are fully considered;
- impacted industries are fully engaged in the consultation process to assess the Australian and global competitiveness implications of any reforms; and
- a whole of resources sector approach forms the basis of any review of the secondary taxation regime for the resources sector to ensure commodity distortions are not created as a result of any reform process.

*Operation of the Petroleum Resource Rent Tax Regime*

PRRT has many features that differentiate it from both income tax and many other resource taxation systems. These differences include a variety of transferability rules, the immediate deductibility of most costs, various carry forward (including compounding) provisions and the taxing unit being a project basis. Overall, PRRT has the basic design features of an ‘economic tax’ rather than an accounting tax or simple excise/royalty systems. It is administered by the Australian Taxation Office, with primary policy responsibility resting with Treasury (as the lead agency) and the Department of Resources, Energy and Tourism (DRET).

With a relatively narrow taxpayer base, consultations associated with design, administration and technical aspects of the tax are generally focused and direct. APPEA provides a stakeholder forum for engagement with the Government, with most companies with activities covered by the regime being members of the Association. However, the Act is becoming subject to increased levels of disputation and litigation, which is leading to increased uncertainty for participants in the industry.

The following comments about the PRRT regime from a compliance and technical perspective are relevant to its efficient operation:

- a number of key interpretive aspects of the legislation are still evolving, which ideally should be resolved through clarifying legislation following discussions, not litigation. Protracted litigation or negotiation with individual taxpayers merely acts to provide undesirable (and lengthy) levels of uncertainty for all other parties;
- Treasury and DRET, as the lead policy agencies, should take a more active role in providing 'policy' guidance on how aspects of the regime should be administered by the ATO, rather than the tax authorities imposing a traditional 'income tax' focus on the interpretation of the legislation. APPEA is particularly concerned that the economic principles that underline the regime are being lost;
- the changing nature of the industry's operations necessitates dialogue on how the legislation should best be modified to address new commercial and technical parameters (ie gas projects are now becoming the norm, rather than stand alone oil projects which were the norm when the regime was first introduced). There should be an on-going process of engagement between all parties as interpretations have a significant impact on project investment decisions; and
- there is a strong case for an annual legislative program to introduce agreed technical amendments to the regime.

An example of the uncertainty that exists was highlighted in the 2005/06 Federal Budget in the context of 'indirect costs' and 'feasibility assessment costs'. At the time, the then Treasurer noted the industry's concerns surrounding the interpretation of these elements of the PRRT regime, and indicated a preference for discussions to take place with the ATO for an administrative solution to be developed prior to consideration being given to a legislative change. More than three years later, industry considers that the issues still remain unresolved with associated unacceptable levels of uncertainty remaining.

New issues need to be addressed, which in APPEA's view, can only be satisfactorily and expeditiously addressed through examining (and possibly revisiting) the issues in the context of the policy intent of the regime. Fundamentally, applying income tax principles to what is an economic tax has the potential to generate entirely inappropriate outcomes.

**Recommendation:** Treasury and the Department of Resources, Energy and Tourism become more actively engaged in providing policy and interpretive guidance on the operation of the PRRT regime with the ATO's role being limited to administrative and compliance issues.

### 3.3 Company Taxation

The company tax system plays a key role in shaping the framework within which investment decisions are made in the petroleum exploration and production industry. In simple terms, it fundamentally influences Australia's ability to compete for international investment funds.

Income (or company) tax is levied uniformly across corporate activities at a rate of 30 per cent, with most income being assessable and the majority of costs being deductible. Costs are generally broken into two categories - those that are immediately deductible (such as operating or administrative costs) and those that are depreciated over a defined period or the life of a project (capital costs).

The treatment of capital costs largely accounts for the variable impact of income tax between different business activities in the Australian economy. Costs incurred within the

non-capital intensive sectors (for example, those associated with the finance, retail or services-related sectors) are generally capable of being deducted relatively quickly, while those that are more capital intensive in nature (such as within the infrastructure and resource development sectors) are generally deductible over extended periods.

**“On a related issue of concern to the upstream industry, a Labor Government will also re-examine the depreciation regime for gas production infrastructure”**

*Senator Chris Evans, Shadow Minister for National Development, APPEA Conference, 2007*

A bias is inherent in the current system in that the net present value of costs which can be immediately deducted (for example, operating costs) are usually greater than the net present value of plant and equipment costs which are generally depreciated at historical cost over a long period of time. The result is that a dollar spent on operating related activities can be more tax effective than a dollar spent on capital. This treatment clearly favours industries which are non-capital intensive in nature. The accelerated depreciation provisions that were in place up until the end of the last decade attempted in part to mitigate against this bias by allowing depreciation rates above the rate that would otherwise apply based on an assets engineering or effective life.

**“The Henry review will be examining ways in which the tax system can continue to provide incentives for new gas projects.”**

*Senator the Hon Stephen Conroy, Deputy Leader of the Government in the Senate, Senate Hansard, 25 September 2008*

The negative impacts associated with the use of long write-off periods for plant and equipment is further exacerbated by the significant mismatch in timing between when expenditures are incurred and when a tax deduction can be claimed. While the general principle of ‘installed ready for use’ forms the basis as to when depreciation can be claimed on plant, it is relevant in an economic context to recognise that the value of plant can start to diminish prior to commencement of production. In the case of large projects (such as those associated with gas developments), expenditures can be incurred up to five years prior to the commencement of physical production. APPEA’s recommendation in relation to the treatment of capital assets for income tax purposes is outlined in section 3.4.

In addition to the general impact of the depreciation framework, a number of other elements of the company tax regime act in a manner to create either unnecessary administrative complexity or uncertainty.

#### *Foreign Resident Withholding*

With effect from 1 July 2004, a 5 per cent withholding tax obligation was introduced to payments made to foreign entities under contracts entered into after this date for the construction, installation and upgrading of buildings, plant and fixtures and associated activities. Concerns were raised by industry at the time about the scope of the obligation and the impact that it may have on contractual relationships existing between local development companies and overseas suppliers.

APPEA was concerned that the provision had the potential to see payments not normally subject to an Australian income tax liability being captured by a withholding obligation. While the ATO introduced a process whereby a party could obtain a variation or exemption, there are considerable timing and process related costs being incurred to meet this requirement. APPEA remains unconvinced of the benefits associated with a withholding provision that covers these types of activities. This is particularly so in the

context of the costs and delays that must be incurred by the Australian based purchaser in compliance related activities.

#### *Capital Asset Pooling*

The taxation laws currently contain a myriad of provisions with different tax treatment for capital expenditure. This involves complexity in the interpretation of tax laws and requires taxpayers to maintain complex records to track the depreciated value of assets for income tax purposes. While assets of relatively low values may be eligible for pooling, the size of the costs incurred in many petroleum projects often requires the maintenance of numerous running balances. This is an administratively complex process. The provision of a simple mechanism that would allow all assets to be aggregated or pooled would improve the simplicity and integrity of the regime.

**Recommendation:** The Review Panel examines the necessity of administrative processes imposed on taxpayers in meeting obligations under the income tax system in circumstances where the risk to revenue is low and compliance obligations are either complex or costly on taxpayers. In particular, an impact statement should be prepared for all tax measures where taxpayers are required to implement structures to comply with provisions under income tax legislation. These impact statements (including the risk to revenue of their removal) should be reviewed on an on-going basis for each taxation measure.

### **3.4 The Impact of Company Tax on Investments Decisions – Gas Projects**

#### *General Observations*

Investment decisions undertaken in the industry must take into account the full life-cycle impact of the fiscal regime. A high priority should be given in ensuring taxation settings are consistent with the encouragement of positive investment decisions. Such a focus will assist in increasing Australia's share of global exploration expenditure, facilitate the development of new projects, and extend the productive life of mature developments.

In order for Australia to be an attractive investment destination for petroleum activities, the fiscal regime must be competitive both globally and with competing fuels in domestic markets. In an environment of rising project costs and a growing and aggressive presence of state-owned oil and gas companies, the incidence and timing of taxation payments takes on additional importance. Taxation is an important means by which Australia can compensate for those factors that may be acting to deter investment decisions such as our prospectivity or the geographic isolation of resources. Modifying fiscal terms in a manner that improves development economics will directly assist both the attractiveness and relative ranking of competing investment options.

APPEA data indicates that taxation accounts for around a third of the total costs incurred by the industry in Australia. The fiscal regime that applies to upstream petroleum operations in Australia broadly operates at three levels:

- **Resource Taxation** – this covers imposts such as PRRT, petroleum royalties and crude oil production excise;
- **Company Tax**; and
- **Taxes on Business Inputs**, covering charges such as tariffs, stamp duties, licence fees and fuel excise.

Decisions undertaken by companies investing in petroleum development projects must, to varying degrees, take into account all of the above charges. While their relative

importance will inevitably vary on a case by case basis, the views of APPEA member companies suggest the following relative impact on project investment decisions:

- company tax – high impact;
- PRRT – medium impact;
- other resource taxes – variable impact depending on the nature and level of the impost; and
- other taxes – low to medium impact

The more significant impact of income tax reflects a number of factors, including the profits based nature of PRRT and the stronger emphasis within the income tax system on the concept of accounting based profits. Specifically, the income tax regime can lead to the early payment of tax which significantly impacts on the economics of high cost, long term projects on a net present value basis.

#### *The Impact of Recent Taxation Reforms*

Changes to the taxation settings may not alone lead to changes in project decisions. However, modified fiscal terms can improve the overall framework and they also represent one of the few policy instruments within the control of governments that can be used to encourage investment activity. The lower returns, longer lead times and generally higher risks associated with gas projects lend themselves to potentially greater economic improvements through taxation changes.

**“..the changes to Australian corporate taxation announced in the 1999 Business tax reforms reduced corporate tax rates at the expense of the accelerated depreciation system for assets. This reduced depreciation allowances and consequently the financial attractiveness of long-life projects, including infrastructure projects, relative to other investments.”**

*Review of Australia's Resource Industry Fiscal Regimes and their International Competitiveness: Report to the Ministerial Council on Mineral and Petroleum Resources, June 2006, page 31*

Since the early 1990s, there have been a number of taxation changes that have affected the upstream petroleum industry. The reforms have to varying degrees had both positive and negative influences on the sector.

#### **Income tax:**

- reduction in the company tax rate to 30 per cent (positive)
- abolition of accelerated depreciation of five to seven years to one based on the life of plant and equipment (negative)
- introduction of statutory caps for certain oil and gas assets in 2002 and an enhancement to the diminishing value rate for depreciation in 2006 (marginally positive)
- introduction in 2004 of a foreign resident withholding regime associated with construction contracts entered into with non-residents (marginally negative)
- modifications to the loss recoupment (and loss transferability) rules (marginally negative).

#### **Resource taxation:**

- introduction of the wider deductibility provisions to the PRRT regime for exploration costs in the early 1990s (positive for PRRT-paying companies with active exploration programs)
- reduction in the uplift rate for general project expenditures (negative)
- introduction of the designated frontier incentive for eligible frontier acreage (negligible impact)
- transferability of exploration expenditure in the assessment of quarterly instalments and a range of technical enhancements (marginally positive).

Importantly, the impact of the measures have varied considerably across individual projects. Industry considers that on balance, and taking account of the changes made in competitor nations, our reforms have resulted in a decline in Australia's relative competitive position.

### *The Fiscal Framework and Gas Projects*

APPEA believes that changes are necessary to the fiscal framework to make it more responsive to the economic factors affecting investments in high cost, long life gas projects and to improve our global competitiveness to attract investment in these types of activities.

**"Ensure that the comprehensive review of Australia's tax system attaches particular importance to measures that enhance Australia's export and investment performance, taking into account globalisation trends."**

***Recommendation 4.8, Review of Export Policies and Programs, 1 September 2008***

As part of the Strategic Leaders' Report, APPEA examined both the taxation contribution made by a single large scale gas project and key corporate taxation settings that apply in competing jurisdictions. To review the underlying project economics of a large-scale gas project and the potential impact of modifying key fiscal parameters, a detailed case study was prepared.

- Project Economics and Estimate Tax Impact

The underlying assumptions for a 'stand-alone' offshore LNG project were developed by Wood Mackenzie with a view to replicating the costs and revenues that realistically could be expected in the development of such a new project in Australia. The analysis was conducted in consultation with, and agreed by government stakeholders.

**Table 4: Estimated LNG Project Parameters and Sensitivities**

	Project NPV (real) \$ million	Change from base (real) \$ million	Govt Revenue (nominal) \$ million	Income Tax NPV (real) \$ million	PRRT NPV (real) \$ million	Project Return (%)
<b>Base case</b>	2 799	0	39 593	4 502	527	11.8
<b>Income tax - 5-year depreciation</b>	3 339	540	39 648	3 961	527	12.2
<b>Income tax - 10-year depreciation</b>	3 104	305	39 618	4 196	527	12.0
<b>Base case, 10% capital cost increase</b>	2 042	(757)	32 881	4 506	0	11.2
<b>Base case, 10% reduction in LNG price</b>	1 505	(1 204)	29 009	3 950	0	11.0

*Source: APPEA (Strategic Leaders' Report)*

The results are based on a two train LNG plant, serviced by an offshore platform and producing 10 million tonnes per annum of LNG over a 27 project life.

Simulations were conducted to highlight both the underlying economics of the project and the impact of changes in key fiscal parameters. For simplicity, it was assumed that there were no historical exploration costs (the PRRT results will naturally vary depending on

the tax paying status of an individual company) and the project was assumed to be condensate dry (minimal associated liquids).

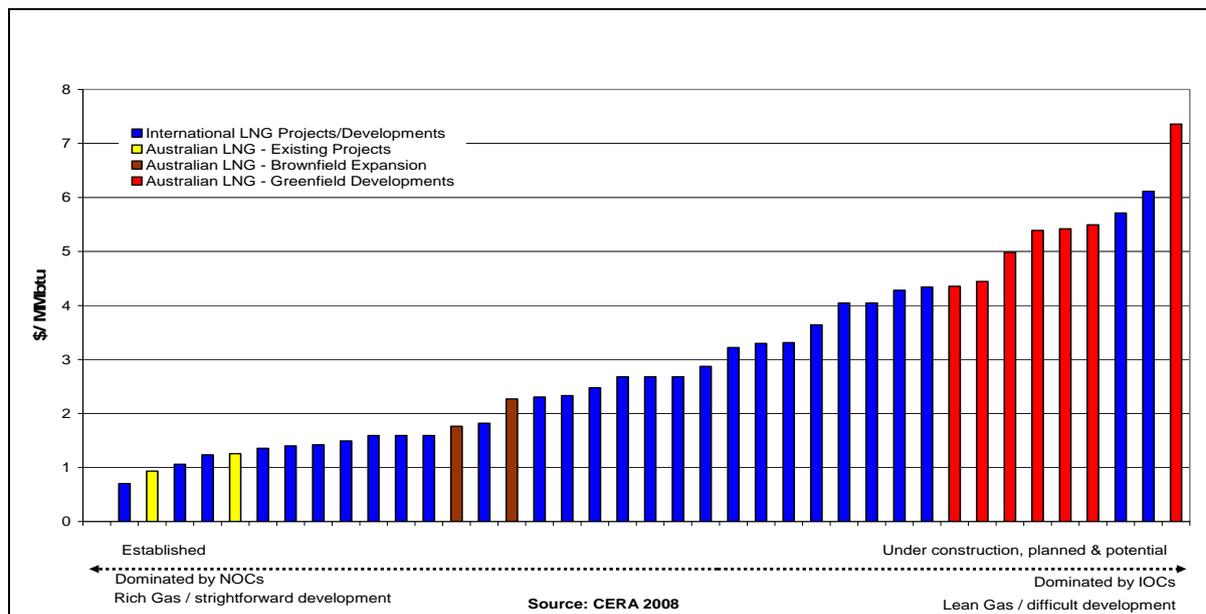
Key findings can be summarised as follows:

- under the base case, a project internal rate of return of 11.8 per cent was generated (this highlights the marginal nature of such projects);
- income and resource taxes account for 64 per cent of the total project returns - as measured by project NPV plus tax payments;
- nearly 90 per cent of the total tax paid is in the form of company tax; and
- government tax take in undiscounted terms approaches \$40 billion over the life of the project (well in excess of \$1 billion per annum).

A number of modifications to the fiscal parameters were also modelled, with a five year depreciation life leading to an improvement in project returns. While not impacting on nominal tax payments that are made over the life of a project, the deferment in the payment of company tax associated with a shortened depreciation life has a significant positive impact on project returns due to time value of money in the project evaluation process.

In addition, changes to key project variables significantly impact the project outcomes. A 10 per cent increase in development costs or a 10 per cent reduction in gas prices were both modelled, with both leading to a significant fall in project performance.

**Chart 10: LNG Project Cost Profile - 2008**



Source: CERA 2008

The cost of actual and potential LNG projects is highlighted in Chart 10, taken from a June 2008 presentation by Woodside Energy to the UBS Australian Resources and Energy Conference and based on the CERA research, shows proposed Australian LNG projects all lie at the right-hand (higher cost) spectrum of current LNG developments.

- Comparative Income Tax Terms

A study was also undertaken to compare key company tax provisions for gas projects across a number of jurisdictions. In drawing conclusions about Australia's relative competitive position, it is important to recognise that other taxes or fiscal systems, whether

they are resource charges or production sharing contracts in nature, will also play an important role.

**“Oil and gas production and processing is a highly capital intensive business and construction costs are growing rapidly.**

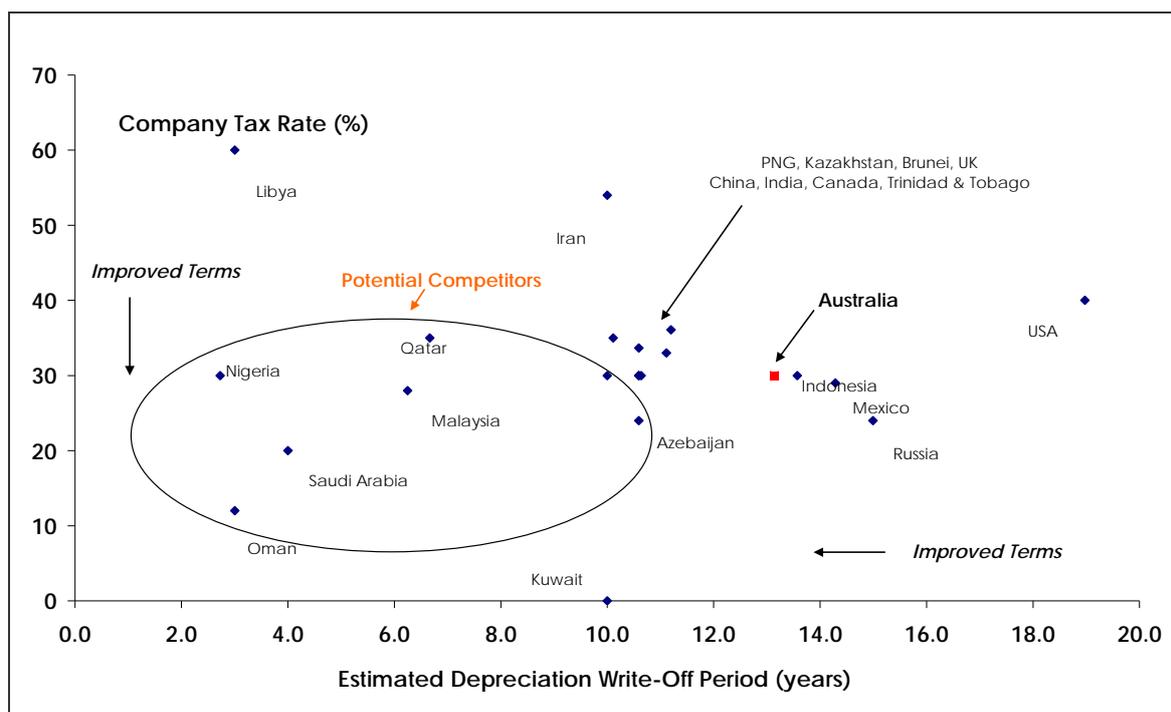
**To address this issue, Ken Henry's review of the taxation system will include an assessment of the barriers to investment in large-scale downstream gas processing projects in Australia, the particular hurdles faced by remote gas developers, and consideration of the future policy framework for new sunrise industry investment in Australia's gas sector, including new LNG and Gas-to-Liquids.**

**New gas projects such as Gorgon, Browse, and Sunrise are struggling to get off the ground and it is therefore time to even up the playing field for investment.”**

*The Hon Martin Ferguson AM MP, Minister for Resources and Energy, Address to CEDA, 5 June 2008*

Taxation comparisons with other countries are often based on OECD examples – this is clearly inappropriate for gas based projects where most of Australia's direct competitors (particularly for LNG investments into the Asia-Pacific Region) are non-OECD countries.

**Chart 11: Company Tax Rate/Depreciation Comparison – Gas Projects**



Source: APPEA Strategic Leaders' Report/KPMG

The depreciation comparison attempts to factor in the special incentives that have been introduced by some countries, including investment allowances or accelerated depreciation, or both, to encourage investment in gas plant and equipment. Chart 11 shows that Australia is clearly not a global leader in income tax terms. While we are around average in relation to the tax rate, we do not perform well in terms of depreciation.

Some of the largest gas discoveries in the world have been made in Australia, yet much of this discovered gas remains undeveloped. In 2005, Wood Mackenzie produced a report titled "Offshore Australia Economics – Gas is not Oil!" and analysed why this was the case and why, at the same time, many oil discoveries in the same province had been

developed. Their conclusions were that the economics of gas exploration and development are much less attractive than oil for the following principle reasons:

- gas prices are lower than oil. LNG is not broadly sold in a commodity market
- gas production profiles are flatter and longer than oil, and
- gas discoveries take longer to develop than oil

**"Australia's depreciation arrangements are generally less favourable than those applying in nations competing for resource investments and this is often claimed by industry to be the single issue most impacting on the competitiveness of resource investment in Australia."**

*Review of Australia's Resource Industry Fiscal Regimes and their International Competitiveness: Report to the Ministerial Council on Mineral and Petroleum Resources, June 2006, page 31*

The Report stated that *"(f)or a number of reasons, the economics of large gas projects offshore Australia are fundamentally different from typical oil projects. While the PRRT regime is progressive, the very long depreciation schedule for federal income tax can create a very high government take, when considered on a discounted basis, as investors are likely to do. This has the effect of driving up the breakeven price for the large, stranded gas projects – making them potentially less attractive than other projects in the region.*

*With oil prices as high as they are, it may appear odd that investors in the petroleum industry could be seeking tax incentives. As this article demonstrates, however, gas is not oil, and the economics of the large gas discoveries continue to appear marginal to investors, even when oil prices are high. While securing a high gas price will remain the investor's primary objective, the Government may wish to consider reducing its take from large gas projects, if it wishes to stimulate development of its gas resources. The most obvious element to review would be the federal income tax depreciation schedule, which appears anomalously slow in comparison to fiscal regimes elsewhere."*

APPEA member companies have commissioned an update of this report that it is expected will be discussed with the Review Panel in the near future.

**Recommendation:** The Government introduces substantial modifications to the company tax regime as it applies to gas projects in Australia. This could be achieved through a major reduction in the length of asset lives for depreciation or through the introduction of an investment allowance under the income tax regime. The introduction of a three year write-off period for all plant associated with gas production, liquefaction activities and related greenhouse gas storage processes would be one such approach.

APPEA notes that the Background Paper to the review (p210-11) compares company tax rates across a range of OECD countries and highlights that since 2001, there have been moves in many jurisdictions towards lowering the headline rate (26.6 per cent was the average in 2008). A theme raised by business stakeholders of recent times has been the potential economy wide benefits that would flow from a reduction in the company tax rate in Australia. Such a reduction would also assist the economics of projects in the petroleum industry, both in the context of investments in new projects and through incremental and new investments in existing projects to enhance petroleum recovery levels. APPEA would support any moves or recommendations made by the Review Group to see such a reduction take place. The call for modifications to the depreciation arrangements as outlined is focused around a characteristic that specifically impacts on gas related projects.

### 3.5 Improving the Exploration Framework

A strong and globally competitive domestic exploration sector is crucial to the long term future of the industry as well as ensuring that the nation remains capable of producing reliable, clean energy and substantial wealth for all Australians. To achieve this objective, it is important that Australia seeks to achieve high level, but realistic exploration targets. The following targets have been agreed by industry and government stakeholders in the Strategic Leaders' Report.

- Increase Australia's share of global exploration expenditure, with increased exploration in both known provinces and onshore and offshore frontier areas.
- Drill at least 40 wells in Australia's offshore frontier basins and 100 wells in onshore frontier basins during the next decade—compared with 12 offshore and 26 onshore frontier wells drilled from 1997 to 2006—in addition to coal-seam methane drilling.
- Double Australia's known 2P (proved plus probable) oil reserves as at 2006 and discover at least one new oil and gas province.
- Expand gas reserves - including coal-seam methane - to reassure the domestic energy market of long-term supply security.
- Become one of the top five most attractive locations globally for oil and gas exploration and development investment.

It has been suggested that higher oil and gas prices and a buoyant LNG market are stimulating increased interest in exploration acreage as well as leading to higher exploration spending commitments in acreage bids (particularly in offshore areas around known petroleum provinces). As highlighted in Sections 1 and 2, the increase in exploration expenditure in recent years has not translated into equivalent rises in actual activity. In reality, the recent increase in exploration expenditure is due to increases in costs.

The real challenge is to greatly increase exploration in onshore and offshore frontier areas. At present, it is estimated that only 17 per cent of Australia's offshore sedimentary basins and 26 per cent of potentially prospective onshore basins are covered by petroleum permits, so we simply do not know what resources remain to be discovered.

Offsetting the enormous unexplored potential are Australia's disadvantages in the form of a reputation for relatively low commercial oil prospectivity, extremely high rig mobilisation costs and concerns about approvals processes. These factors need to be recognised and offset by fiscal settings that respond to the additional risks associated with exploring in frontier areas. While the industry is subject to a wide variety of taxes, any measures that are directed towards responding to the challenges of exploring in high risk areas must have the widest application possible.

The designated frontier area PRRT incentive that was introduced in 2004 and that will cease following the release of the 2008 offshore acreage has been of negligible benefit. Industry believes that a mechanism associated with the company tax system will provide a far greater stimulus – this can be achieved through both an investment allowance for eligible expenditures and a flow through share type mechanism for junior explorers.

**Recommendation:** The Government introduces an investment allowance type deduction under the company tax regime for petroleum exploration in frontier areas at a rate of 175 per cent of eligible exploration expenditures. Modifications to the company tax regime be introduced via the adoption of a flow through share mechanism to assist junior exploration companies in raising equity capital to undertake exploration.

Modifications to the framework to assist exploration in frontier areas serve a fundamentally different purpose from fiscal reforms to stimulate investments in long terms capital projects such as those associated with the gas developments. The measures are to some extent independent but work jointly to improve the overall investment framework for the industry.

### 3.6 Taxes on Business Inputs

Indirect taxes, charges and fees also apply to a range of transactions and activities in the petroleum industry. Imposts include tariffs on imported equipment, licence fees, stamp duties, fuel excise, regulatory charges and local government rates. Some costs apply at the commencement or construction phase of a project, while others apply during the exploration and production phases.

Various government initiatives have seen the financial impact of some of these imposts reduced (such as the introduction of the Enhanced Project By-law Scheme and the Fuel Tax Credit system) while others still continue to apply. Such taxes are generally regarded as being economically inefficient as they represent a dead-weight loss on productive processes. In addition to the direct cost impacts, the administrative obligations that are placed on taxpayers through the imposition of such charges can be complex and cumbersome.

While a number of measures have been introduced (or maintained) for industry policy (such as tariffs) or cost recovery purposes (such as petroleum licence fees), a range of other charges have simply become a means of raising revenue. This is particularly the case in relation to charges such as stamp duties and title transfer fees. For the petroleum sector, the application of transaction charges for variations in interests within licences or permits merely represents a means for raising revenue. Such charges can act to impede changes in interests simply because of the quantum of the charge imposed by the revenue raising measure. In APPEA's view, this simply represents a highly inefficient form of taxation.

**Recommendation:** Governments move to abolish or reduce the incidence of charges that apply to business transactions and that when retained, such imposts be levied at a level to cover the administrative costs of undertaking service activities.

Inefficiencies faced by businesses through the application of employment related taxes and charges (such as fringe benefits tax and payroll tax) exacerbate the challenges faced by project proponents in an environment of extreme skill shortages.

#### *Goods and Service Tax (GST)*

In terms of taxes on business inputs, the GST has a number of attributes that make it a relatively efficient taxation mechanism. While its introduction provided a number of policy and implementation challenges, industry and government engagement in the lead up to the formal commencement of the regime in 2000 allowed a range of matters to be addressed at an early stage.

One of the major difficulties remains the need to track and report various types of transactions for GST purposes differently from accounting requirements. While the accruals method of reporting GST liabilities and credits is broadly based on accruals accounting concepts, GST rules do not go far enough in terms of alignment with accounting standards to simplify reporting of specific transactions. Amendments to the GST legislation and/or administrative policies should be considered to allow the

reporting of GST to be aligned with accounting principles for business to business domestic transactions where there is no revenue loss to the Government. In addition, the general operation of the regime for joint ventures needs to be simplified to reduce the complexities faced in registering and tracking GST joint ventures.

**Recommendation:** The Government periodically reviews the operation of the GST regime to ensure the key provisions remain consistent with the nature of commercial practices in industry and that compliance and administrative obligations do not impose unnecessary burdens on taxpayers where there is minimal risk to revenue.