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SUBMISSION TO THE PRODUCTIVITY COMMISSION S REVIEW OF REGULATORY BURDENS ON BUSINESS – PRIMARY SECTOR

APPEA Comments

JULY 2007

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1. THE ECONOMIC SIGNIFICANCE OF AUSTRALIA'S OIL AND GAS INDUSTRY

Oil and gas currently accounts for 33 per cent and 21 per cent respectively of Australia's primary energy consumption (ABARE 2006). In 2006 the estimated value of Australian oil and gas production was $22.7 billion, while tax and royalty payments to the Australian and state and territory governments amounted to more than $8.1 billion (Wood Mackenzie Global Economic Model).

Local production of oil and gas is also a source of highly skilled employment, education, training and research. APPEA estimates that the Australian upstream industry directly employs more than 15 000 people. Indirect employment is even more significant— an estimated 30 000 direct and indirect jobs in Western Australia alone. Exports of petroleum— including crude oil, LNG and refined petroleum products— totalled $14.6 billion in 2006 and were Australia's second-largest income earner after coal. LNG exports, at $5 billion in 2006, are increasing rapidly and have been estimated to increase to $8.5 billion by 2011 (Wood Mackenzie).

Geoscience Australia estimated that as at 1 January 2005 Australia's oil and condensate resources were 1496 and 2475 million barrels respectively. The oil resources are equivalent to 10 years of production at 2005 production rates. The ratio for oil and condensate combined is 20 years, although this figure can be misleading since condensate is a by-product of gas production and dependent on the development of Australia's large offshore gas fields and their depletion over many decades.

Australia's gas resources were estimated to be 146 trillion cubic feet as at 1 January 2005. This is equivalent to 110 years of production at 2005 gas production rates. In addition to conventional natural gas, Australia has extensive deposits of coal-seam methane, although, because of the recent emergence of this sector, the ultimate recoverable volume and value of this resource is not yet clear. There is, however, a valuable coal-seam methane industry developing, particularly in New South Wales and Queensland, to help service the needs of eastern Australian gas consumers.

2. THE STRUCTURE OF THE AUSTRALIAN INDUSTRY IN A GLOBAL ECONOMY

Although the large LNG projects and the large companies attract most of the media and government attention, there is a diverse spectrum of participants in the upstream industry, and 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, increasingly, in the United States and other parts of the world. A number of medium to large-sized Australian companies typically have producing assets that fund further onshore and offshore exploration. Many of these are also expanding overseas in pursuit of more attractive opportunities in terms of prospectivity, product prices and time to first revenue.

An increasing number of LNG customers and overseas investment houses are also taking minor equity positions in Australian exploration permits and oil and gas projects. Corporate strategies and reasons for investing in Australia vary but can include a desire to secure long-term sources of gas supply and to diversify supply risk. These organisations play an important role in providing equity capital and spreading the risk, for high-cost LNG projects in particular. They do, however, have numerous other investment alternatives in other countries, so are especially sensitive to Australia's international investment competitiveness. The same applies to the super-majors, whose Australian interests represent a very small part of their global portfolios. These companies are predominantly focused on offshore exploration for large gas opportunities underpinned by LNG exports.

Finally, part of the industry consists of several large Australian companies that have grown principally from their Australian activities. They continue to invest in Australia, but limited opportunities here are also leading them to diversify overseas. Once again, the split between Australian and overseas spending is increasingly dependent on Australia's international competitiveness for new investment.

3. AUSTRALIA'S COMPETITIVE POSITION

The oil and gas industry is very capital intensive, and tens of billions of dollars of capital will be needed 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 19.5 mtpa (once the current North West Shelf expansion is completed in 2008) to the industry target of 50 mtpa by 2017 will require new capital investment of at least $40 billion.

Although the geological knowledge base is far from complete, Australia is generally perceived to offer low prospectivity for oil, with relatively low discovery rates and small average field sizes. Gas prospectivity is good, but Australia already has many large undeveloped gas fields, and new gas discoveries are often remote from markets and difficult to commercialise. In the past Australia has offered a reasonably attractive petroleum investment environment and developed a reputation as being a sound place to do business. Low sovereign risk, transparent legal and regulatory processes, a stable political and economic environment, competitive markets and solid investment in pre-competitive geoscience research are significant advantages, encouraging global oil companies to direct a part of their activity and investment to Australia.

Most companies will seek to have a spread of investments across the risk–return spectrum, and Australia fits into that part of the spectrum offering lower risk than many other parts of the world. For this reason some international comparisons rank Australia relatively highly for petroleum investment. But Australia's lower risk is also accompanied by lower returns. Wood Mackenzie (2004) evaluated exploration performance and returns for 60 regions to which international oil companies had access between 1994 and 2003. On the basis of discovery success rates, average discovered field sizes, development costs and government take, offshore Australia ranked poorly— 38 out of 60— for returns on exploration spending.

Development risk in Australia is also increasing. Oil project developments have tended to be in deeper water and more technically challenging. The large capital requirements, long construction periods and long payback periods associated with remote LNG projects also increase Australia's risk profile. In short, global competition for investment capital is increasing, and there are many investment alternatives. To optimise the value of its petroleum industry, Australia must constantly monitor its overall competitive position for investment.

Ensuring a competitive regulatory framework is a critical ingredient for maintaining and improving on Australia's overall global competitive position as an attractive investment destination.

4. BALANCING THE NEED TO ENSURE PUBLIC CONFIDENCE WITH MAINTAINING INVESTMENT ATTRACTIVENESS

Australia's oil and gas exploration and production industry is fully supportive of a strong regulatory system that is well enforced: this ensures that the industry has a clear understanding of the requirements it must meet, while giving the public confidence that petroleum producers are adhering to sound, responsible operating practices.

Every step in the exploration, development and production of crude oil and natural gas is highly regulated by governments and regulatory agencies. In every jurisdiction of Australia the industry must potentially meet hundreds of requirements relating to timing, location, environment protection, worker and public safety, and management and extraction of the resources in a manner that best serves Australia's national interest.

Most of Australia's oil and gas resources are found in Commonwealth waters (more than 90 percent), and usually brought onshore for processing in state/territory jurisdictions via pipelines crossing Commonwealth, then state, waters. In many of the states and territories, there are often duplicated requirements that industry must follow for a given activity for each of the respective jurisdictions.

While the development of the extensive approval requirements in each respective jurisdiction in isolation may have been appropriate at the time, given the multi-jurisdictional nature of oil and gas projects, the result is that there are potentially hundreds of approvals required, and in the eyes of investors, hundreds of opportunities for governments to oppose a development proposal.

The industry understands the importance of government oversight of its activities and the policy intent behind the regulatory framework. But unnecessary and/or duplicative regulations can have a significant impact upon the oil and gas industry and can hinder investment in Australia, resulting in an international perception that Australia is a difficult place to invest. The reduction of the regulatory and compliance burden faced by the industry would enhance petroleum investment in Australia, and increase the industry's already valuable contribution to Australia.

5. OVERLY COMPLEX REGULATION REGIME HAS THE GREATEST IMPACT ON SMALL EXPLORERS

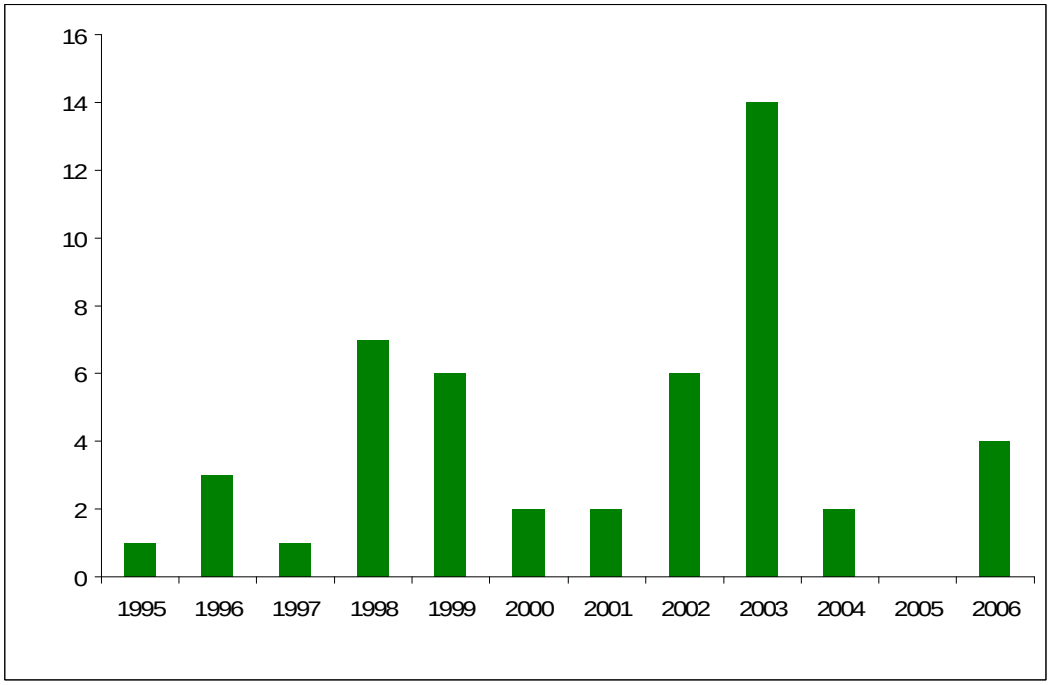
In Australia, it often takes a lot of time, money and effort to secure regulatory approval to explore and develop oil and natural gas. Gaining this approval often causes delays that can be costly and inefficient for both industry and government, and has the potential to drive investment overseas, from both Australian companies and international companies with Australian operations.

The cross-jurisdictional regulatory maze for most oil and gas projects potentially has a much greater impact on smaller companies with fewer resources to dedicate to providing governments with the information they need for the hundreds of decisions required to be taken. These smaller offshore exploration companies are frequently seeking to access Australia's higher-risk frontier areas and are increasingly choosing to invest their exploration budgets overseas rather than wade through Australia's regulatory maze.

6. NATIVE TITLE PROCESSES RESULTING IN DELAYS OF UP TO A DECADE

Onshore explorers cite the multiplicity of approval requirements and long and uncertain approval time lines as the greatest impediment to onshore exploration. The lengthy and uncertain time lines involved in Native Title and Aboriginal heritage processes are one of the main onshore impediments and pose considerable additional costs for petroleum exploration. While South Australia and the Northern Territory are successfully resolving this problem by adopting a conjunctive Indigenous Land Use Agreement approach (as provided for under the Native Title Act 1993), this might not be achievable in other jurisdictions. Information collected from Queensland indicates that there are exploration permits awaiting Native Title outcomes dating back over a decade, with more than half dating back at least 5 years.

Exploration Permit Applications in Queensland Pending Conclusion of Native Title Negotiations



Other solutions need to be identified that are tailored to the circumstances of individual cases. In some situations it might be possible to develop area agreements and Indigenous Land Use Agreements to allow several exploration permit applicants to explore and produce petroleum in a single area. This would reduce the resource requirements for individual negotiations and provide greater certainty for current and future explorers in the area.

APPEA welcomes the recently proposed amendments to the Native Title Act, including those that will allow for the creation of template agreements. APPEA hopes that in years to come the Act will become more user friendly and responsive to the needs of both the community and the industry. It would also be useful for Native Title parties and the industry to consider mechanisms for building relationships and better conveying the nature and importance of the petroleum industry to Indigenous communities. In this regard, the Australian Government's successful Working in Partnerships program could be a model to improve the relationship between industry and Indigenous communities.

7. CURRENT MOVES FOR REGULATION REFORM

The perception of Australia as an investment destination with a low level of sovereign risk must continue to be at the forefront of policy makers' attention. Historically, this characteristic has been presented as an important strength of investing in Australia but increasingly complex restrictions in most jurisdictions is increasing investor uncertainty and weakening one of Australia's main competitive advantages.

Currently, a number of state governments (for example the WA Office of Development and Approvals Co-ordination) and the Australian Government, through the Prime Minister's Task Force on Reducing the Regulatory Burden on Business, have started work on identifying the need to reform their respective regulatory regimes. APPEA notes that the Prime Minister's Task Force has recommended action to address inconsistency and duplication across jurisdictions, and specifically recommends amendments to regulations under the Petroleum (Submerged Lands) Act.

Since the release of the Prime Minister's Regulation Task Force Review (the "Bank's Review") in 2006, APPEA has been working constructively with governments to respond to concerns about the level of regulatory duplication that has built up under the auspices of objective-based regulations. APPEA has been particularly encouraged by the work of the Commonwealth and state industry departments, and welcomes the real prospect that potentially up to 60 duplicative decision points might be removed from the Petroleum (Submerged Lands) Regulations. Specifically this would involve repeals of the Pipeline Management Regulations, Diving Safety Regulations and the many legal *consents* required to construct, install and operate a facility or pipeline. This process should also result in significant amendments to the Well Operations Regulations.

Through this process, government has worked constructively with industry to go back to first principles and consider the purpose of each clause of the regulations, how it is regulated, and whether this purpose has already been addressed in another regulation, such as safety or environmental requirements. This process has been a very successful exercise in identifying duplication and reducing the number of approvals required. Governments are currently discussing internally the best way to proceed to give effect to these decisions, while maintaining a robust regime.

8. A UNIQUE MODEL OF REGULATION REQUIRED FOR A UNIQUE INDUSTRY

Given the unique circumstances of the oil and gas industry, where the one oil and gas project will more often than not cross three (and sometimes four) regulatory jurisdictions, there is an opportunity to recognise that the industry requires its own unique regulatory system. The recently established Environment Assessors Forum (EAF) has made significant in-roads to start addressing inconsistent application of the law. The EAF includes representatives from all jurisdictions, and seeks to remove inconsistent interpretation of regulations and find pragmatic solutions to regulatory issues, while preserving the intent of the regulation.

While the EAF model is useful in removing inconsistency, a model that could also address the duplication of regulatory approvals in the longer term is one chosen in the establishment of the National Offshore Petroleum Safety Authority (NOPSA). NOPSA administers the offshore safety regime for both Commonwealth and states waters and some offshore islands on behalf of the respective ministers.

Through NOPSA, ministers have not ceded their regulatory responsibilities to another minister, but instead have opted to use the one regulator to administer each minister's responsibilities for offshore petroleum safety. There is the potential that the NOPSA model could be adopted for other aspects of petroleum regulation, and the industry would strongly support an investigation into the viability of a national regulatory authority to manage all regulatory approvals for the oil and gas industry.

APPEA will continue to work with governments to ensure that regulations are targeted and appropriate to their purpose, and meet the needs of the Australian people. APPEA hopes that the work done to date is not yet another false start, and proves to be the first steps towards significant regulation reform for Australia's oil and gas exploration and production industry.

9. SIX CASE STUDIES OF THE REGULATORY COMPLEXITY FACED BY A RANGE OF PETROLEUM DEVELOPMENT ACTIVITIES

Through the process of consultation with its members, APPEA has brought together a number of case study examples demonstrating the current regulatory burden faced by the Australian oil and gas industry, including:

- a major LNG development proposed for an existing industrial region;
- an unmanned oil facility, connected via a pipeline through State and Commonwealth waters to an onshore processing and distribution facility;
- a tie in gas development, connecting a gas new resource to existing gathering and processing infrastructure;
- a stand alone Floating Production, Storage and Offloading (FPSO) oil field development located in Commonwealth waters;
- a pipeline development project connecting a major development in Commonwealth waters to gas processing infrastructure located on State Lands; and
- a green-fields sub-sea gas development in Commonwealth waters, with associated pipeline and onshore processing and distribution infrastructure.

Unfortunately given the immense complexity of the regulatory system faced by Australia's oil and gas industry, the current time constraints mean that it has not been possible to accurately quantify the exact cost of the regulatory burden, or more specifically the costs of duplicative or unnecessary regulation. As we have discussed with Commissioner Woods, APPEA will be seeking to commission the Productivity Commission to undertake a more detailed and extensive investigation and benchmarking of the Australian petroleum regulation system across all jurisdictions. This review should involve a benchmark against Australia's international competitors including countries like the United States, United Kingdom, Canada, Qatar, Norway, Indonesia and Brazil.

However for the purposes of the existing Productivity Commission review, the case studies clearly demonstrate the case that to develop any of these projects requires extensive teams of potentially dozens of highly trained people to shepherd the approvals through the company, engage with government, engage with scientists, engineers and other specialist contractors and of course engage in consultation with local communities.

Case Study 1

LNG Development in Commonwealth waters with onshore processing

Australia has identified a number of gas resources with the potential for commercialisation into both domestic and export liquefied natural gas (LNG) developments. Reserves of gas identified by Geoscience Australia are estimated to be 146 trillion cubic feet, or some 110 years supply at current production rates.

This case study involves accessing gas resources located in Commonwealth waters, with pipeline infrastructure bringing the resource through State waters onshore for processing, liquefaction and export via shipping. This development involves capital expenditure of $6-10 billion and will create up to 3000 direct jobs during construction and up to 200 jobs during operations from 2010. A further 3000 indirect jobs will also be created, mostly in the State, with an expected to boost the State economy by at least A$28.6 billion over the life of the project.

This project:

- required some 277 regulatory considerations and requirements; from
- 19 separate regulatory agencies, of which 9 were Commonwealth and 10 were State/Territory.

More specifically the total number of regulatory requirements included:

- 64 relating to general project approvals and preliminary survey requirements;
- 53 relating to offshore drilling, installation, construction and diving requirements;
- 49 relating to offshore pipeline design, construction, installation, commissioning, and operations;
- 7 relating to the decommissioning;
- 30 relating to shore crossings and shipping facility requirements;
- 52 for the storage, loading and processing facilities; and
- 22 relating to other general approvals for accommodation, gas connections and permit administration.

One of the challenges on this development has been the impetus to develop this export LNG project to take advantage of favourable global market conditions. As a result of the great importance of market timing a range of development options were under consideration and therefore the need to prepare approval documents for many of these different options.

The resources allocated, both internally and externally, to steer through the regulatory requirements for this project included:

- 1 fulltime approvals coordinator;
- 1 offshore environment approvals coordinator;
- establishing 30 focal points within the operator to coordinate all of the 277 individual applications, with each focal point requiring 2-3 people;
- preparation of several of the approval documents are out-sourced, such as the Public Environment Report and Field Development Plans at significant cost but still requiring high degrees of oversight and coordination by the operator; and
- several meetings interstate to Commonwealth regulators in particular (at the early stage of environment approvals and field development plan there were weekly visits for several personnel each time).

Case Study 2

Commonwealth waters oil development with onshore processing

Some smaller offshore resources are increasingly being accessed via not-normally manned facilities with a pipeline connecting the platform to onshore processing facilities. In this case study, a jack-up installed, unmanned, remotely operated wellhead platform was connected by two pipelines to onshore processing facilities. The platform sources oil reserves from eight production wells and incorporates two water re-injection wells, with the total cost for the development and construction of this operation exceeding $320 million.

This small unmanned facility located in Commonwealth waters required:

- 163 separate regulatory considerations and requirements; from
- 22 separate agencies, of which 8 were Commonwealth and 14 were State Government.

More specifically the total number of regulatory requirements included:

- 17 relating to the requirements for petroleum titles and licensing;
- 47 relating to the construction, installation, commissioning, operations and decommissioning of the offshore facility;
- 61 relating to pipeline approvals;
- 18 relating to drilling operations; and
- 45 relating to the construction, commissioning and operations of the onshore facilities.

The resources allocated, both internally and externally, to steer through the regulatory requirements for this project included:

- approximately 6 man years overall for the internal management by the operator of all 163 approvals and regulatory requirements;
- 54 man months of the internal management and coordination of all health, safety and environmental approvals; and
- engagement of contractors for the drilling and pipeline approvals totalling over $100,000.

Case Study 3

Commonwealth waters gas development

Smaller gas reserves may not be commercial in their own right, but when tied into existing gas processing infrastructure, can become commercial and add significantly to the diversity of Australia's domestic gas supplies.

A gas development located entirely within Commonwealth waters and tying into existing onshore gas processing infrastructure and requiring no construction for onshore processing required:

- 83 separate regulatory considerations and requirements; from
- 17 separate agencies, of which 14 were Commonwealth and 3 State Government bodies.

More specifically the total number of regulatory requirements included:

- 24 relating to the drilling design, construction and operation phase;
- 7 relating to obtaining a production licence;
- 46 relating to the pipeline design, construction, installation, commissioning and operations phase; and
- 6 relating to the decommissioning phase.

The resources allocated, both internally and externally, to steer through the regulatory requirements for this project included:

- Environmental approvals (EPBC and PSLA) that have cost approximately $200,000 in environmental consultants fees as well as 5 man-months of time from the operator;
- Production licence, Field Development Plan, Pipeline Management Plans, Pipeline Licence that have required about 8 man-months of time from the operator to prepare;
- Installation Vessel Safety Case Revision, Dive Management Plan and supporting HSE management plans and procedures for installation that have cost around $200,000 in consultancy fees; and
- HSE assessments in design for the operation have cost a further $300,000 in consultancy fees.

Case Study 4

Commonwealth Waters Floating Production, Storage and Offloading Facility Oil Development

To access smaller oil and condensate reserves that do not warrant the construction of immense traditional steel jacket or concrete gravity infrastructure designed to last decades, the industry is increasingly using Floating Production, Storage and Offloading (FPSO) technology.

In this case study the development involves a subsea development and an FPSO facility which will be used to process, store and offload oil to export tankers, with an estimated economic field life of approximately 10 years. The vessel will be disconnectable, double hulled and be able to process approximately 80,000 barrels of liquids a day. Project costs for the development and construction of this operation are approximately US$600 million.

This stand alone FPSO development in Commonwealth waters identified 44 broader scale approval requirements from 6 separate agencies. Significantly this development did not include any pipeline regulatory requirements, which in the previous three case studies accounted for 49, 61 and 46 approvals respectively. Of the 44 approvals that were required for this stand alone FPSO development:

- 18 related to subsurface and drilling operation requirements;
- 14 related to validation, environmental, health and safety approvals;
- 6 related to installation and diving requirements; and
- 6 related to standards of design, testing and recovery of petroleum.

Case Study 5

Pipeline Design, Construction, Installation and Operation

In this case study, the operator identified that the approvals required just for the pipeline connecting gas wellheads to onshore processing facilities included 55 approval points or considerations to just the National Offshore Petroleum Safety Authority and the State Designated Authority. This project will produce around 180 terajoules of gas per day and 850 barrels of condensate per day, from three production wells producing to an unmanned platform. Project costs for the development and construction of this operation are approximately $300 million.

Of the 55 approvals that were required just for the pipeline of this project:

- 9 related to the initial development and project proposal;
- 11 related to the pipeline design;
- 14 related to the pipeline construction;
- 13 related to the pipeline operation; and
- 8 related to consents or notices required.

Case Study 6

Subsea Near-Shore Gas Development and Onshore Processing Facility

Another example of developing Australia's gas resources is through the use of sub-sea wells without the need for any top-side development. These sub-sea wells are then typically connected to an onshore processing facility via pipelines through Commonwealth and State waters. In this instance the pipelines connected the production wells offshore to an existing stabilisation and processing facility. However the cost to develop and construct this project still exceeded $200 million.

This facility located in Commonwealth waters, with pipeline access to existing onshore processing infrastructure required 144 separate regulatory considerations and requirements, of which again the largest percentage related to pipeline requirements (over 25 percent).