

Submission to Senate Economics References Committee Inquiry into Australia's Oil and gas reserves

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Section 1 – Terms of reference paragraph (a) arrangements used by other countries to maximise the benefit to the public of national oil and gas reserves

1.1 Rationale for change and some areas where Australia is falling behind

1.1.1 Petroleum resource management book

In 2018 my book *Petroleum Resource Management How Governments Manage Their Offshore Petroleum Resources* was published by Edward Elgar (<https://www.e-elgar.com/shop/petroleum-resource-management>). This compares how Australia, Norway and the United Kingdom manage their offshore petroleum reserves and deals with a number of issues under consideration. The Norwegians are often regarded as the best at maximising the benefit to the public of their reserves. Their approach has involved the state taking a direct interest in upstream reserves, initially through Statoil and now through Petoro. Their tax system has a high rate of tax applicable to petroleum (78%), but also involves the state taking a greater level of risk because the tax element of exploration expenditure can be refunded. Both of these are likely to be unappealing to government in Australia. However, the United Kingdom (UK), with whom Australia is perhaps more culturally and politically aligned, has taken important steps following the Wood Review to improve its performance. Section 1.2 sets out some key ideas that Norway and the UK are both progressing.

1.1.2 Summary of key ideas

These are set out in the following edited version of a commentary I gave when the book was launched in March 2019 by the Governor of Western Australia, Kim Beazley AC. The main focus of this is oil and gas reserves in Commonwealth waters:

The petroleum regime and Australia's direct return

Our petroleum regime, in common with Norway and the UK is a licence-based system. What this means is we seek to attract companies to explore for petroleum by granting them exclusive rights over a defined licence area. This involves a bargain in which Australia gives an oil company, or companies in joint venture, an exclusive area to explore. If the company is successful, the company takes the petroleum it produces in that area.

The other side of the bargain is first that the company is required to carry out exploration and other work and secondly that it pays tax on its earnings: in Australia offshore that is chiefly income tax and PRRT. So the amount of tax revenue obtained by the Australian government from petroleum production represents Australia's major direct return. The amount of the direct return is an important test whether we are getting the best out of our petroleum.

In the book I examine in detail the policy and rules of licensing regimes and the related concepts like stewardship, accountability, resource rent, economic recovery and good oilfield practice. I also look at how companies and government evaluate projects and how companies are responding to challenges like climate change. Obviously my comments tonight cannot cover all of that. What I will try to do is guide you along the red thread that connects it.

The research reinforced the perhaps obvious point that companies produce petroleum to generate profits. But it also brought out that the prime motivation of countries is generating economic activity and tax revenue. So there is a common interest in turning petroleum into money.

In the book I look at the government's direct return from two angles: first how they extract value through the taxation system and secondly how they ensure that

licensees conduct their operations to an appropriate standard. The second impacts the first because excessive operating or capital costs reduce the tax return. I found that these are separate streams of thinking dealt with by different government departments

So in Australia taxation is dealt with by Treasury and the Tax Office. Improving the standard of the licensees' performance is not their function. From their perspective it is the function of the ministry tasked with licensing. But as the book explains protecting the country's economic return is not an expressed objective or function of those responsible for the Australian licensing regime. So there is a gap.

It is easy to cloud the issue of direct return by trying to bring into consideration the jobs created and the spread of economic activity through an economy. Important as those things are, for tonight's purposes I would just ask you to accept that other countries don't let those things make them lose focus on direct return- and they frequently do better than us on those measures anyway, and don't suffer geopolitically. For Norway it is an important part of their brand.

One of the reasons why I compare Australia with Norway and the UK is that they all started to explore for offshore petroleum at the same time- in the 1960s- when their governments had very little petroleum expertise. Their licence systems are based on granting concessions. Concessions have been used since Roman times for people to develop an income stream from resources by getting someone else to exploit them. An important feature is that the granter of the concession has a relatively passive role- it receives a rent or royalty payment and does not interfere in the concessionaire (or licensee's) operations.

Norway and the UK evolved their regimes and strengthened their regulators because they found this approach did not serve the national interest because of the special nature of petroleum. In contrast Australia has stuck closely to the 1960s model. Let me put three questions to you to explain:

Question 1

- **In Australia who owns offshore and onshore petroleum before a petroleum title is granted?**

I expect that you all know that the answer is that the Australian people do. Petroleum onshore was nationalised by each state by legislation. Pursuant to the Seas and Submerged Lands Act 1973 the Commonwealth holds the rights to petroleum under Australia's continental shelf except for the first 3 nautical miles which belongs to the states and territories.

Perhaps surprisingly not everyone knows or acknowledges the correct answer.

There are a number of large elephants in the room for tonight's discussion, which I will point out as we go past.

The first is that the main decision-making body for the area off each state and territory is something called the Joint Authority, which consists of the relevant federal and state minister or their delegates, in both cases advised by NOPTA. As the Productivity Commission identified in 2009 it is questionable whether this model is capable of treating the issues we are discussing tonight with appropriate independence, foresight and policy support. Australia's federal system appears to prevent change in this area.

Question 2

- **For whose benefit are the directors and managers of an Australian incorporated company under a duty to run it?**

The answer is that directors and management have special duties to act in the company's interests and promote its success- this is often put in terms of them maximising shareholder value. They are after all accountable to shareholders because the shareholders own the equity in the business.

What follows from the first two questions is fundamental. First and most importantly it means that giving a company rights to exploit offshore petroleum is disposing of a national asset. Just think about that for a moment- if the Commonwealth sold off public land at an undervalue that must be a breach of duty.

So here is the thing- the disposal process of petroleum is not just a one off sale and will depend on how all the licensees in a region perform throughout their licences. This means that the standard of care of government extends over the entire period of the licences and performance of the region – in my submission overall net direct return should be a key measure of government stewardship. But then remember that the people running the other party to the licence bargain, the company directors, are obliged to act in the company's interests, not those of the country or other licensees- which generally means maximising the company's profits from the licence area and not from the region. So you have an in-built conflict of interest.

One Norwegian regulator put it to me with characteristic clarity: “The oil companies are not your friends”. I would add they are not your enemies either. They are just doing what they are intended to do- and taking some big risks while doing it. Their involvement is essential if you want to produce petroleum. But the consequence is that the rules of our regime need to deal with this conflict.

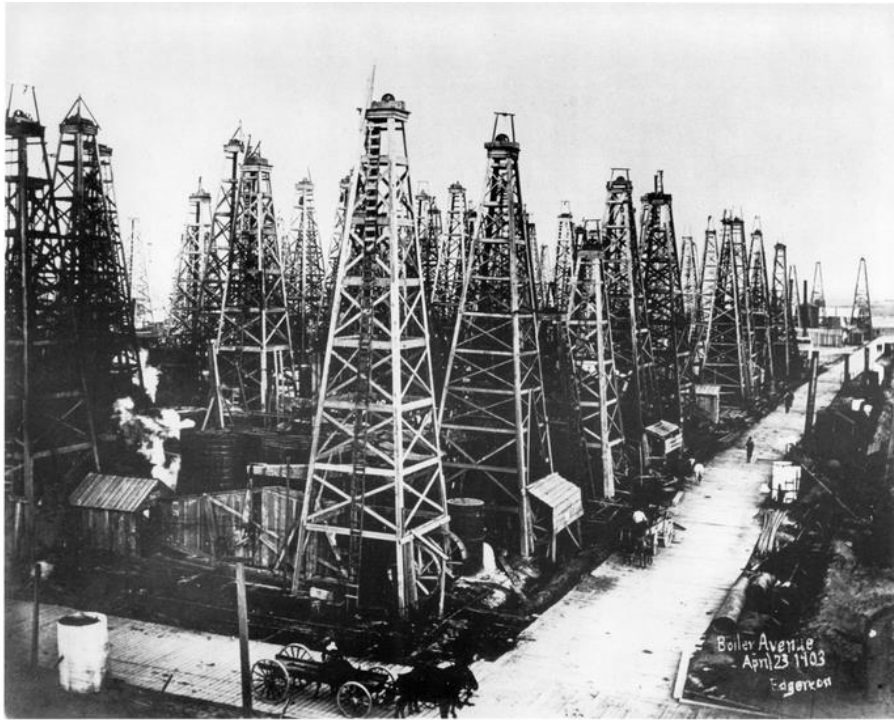
What also follows is that the Australian people have a commercial interest in offshore petroleum. I suggest you look at this on the basis that we are effectively joint venturers with Woodside, Shell, Chevron and the others. Our contribution is the resource. Theirs is capital and expertise. Just think about this - no company in joint venture in which it was not the operator would take no interest in how well economically the venture was performing. But that is very close to what government in Australia does.

But does any of this matter? Here we come to Question 3:

Question 3

- **Can the profitability of a company's petroleum operations be adversely affected by the operations of other petroleum companies (particularly those close by)?**

And it does matter because the answer is Yes.

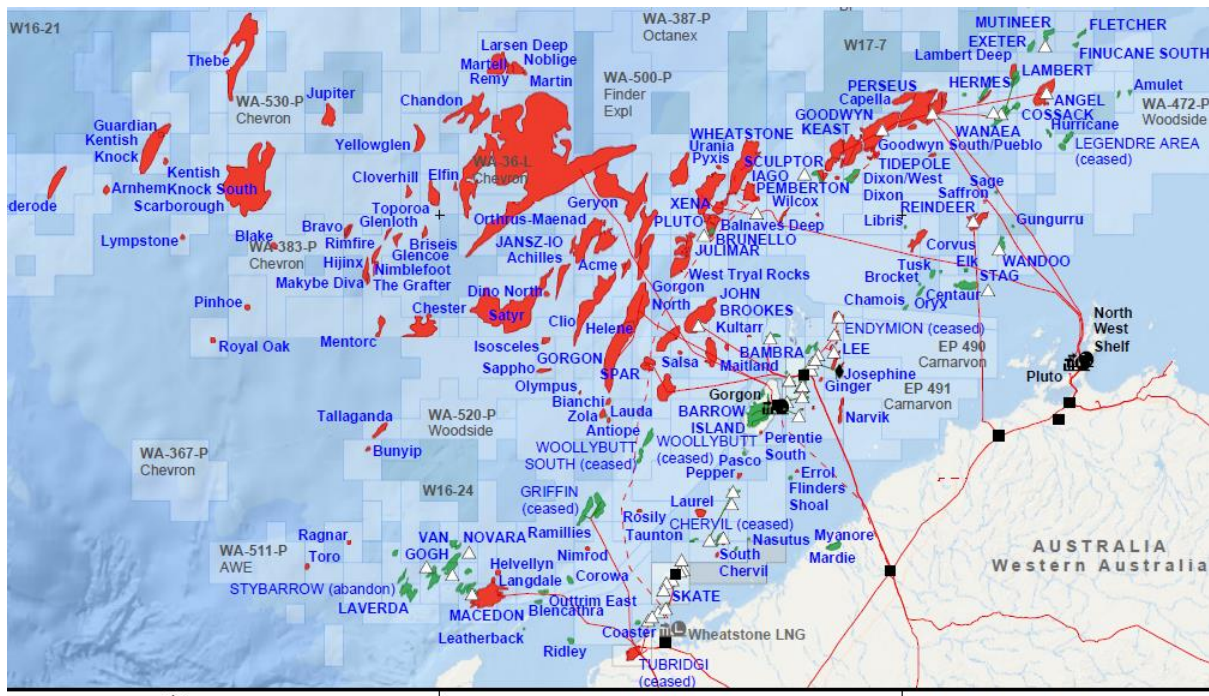


This is graphically illustrated by a picture of the Spindletop development in Texas in 1903: hundreds of small leases, many just big enough for an oil derrick and some equipment. All of these wells were drilling into the same reservoir.

This intensity and the lack of shared facilities result in excessive capital and operating costs. But importantly production would not make the best use of the reservoir because the owners of these rigs pumped oil as fast as they could go rather than producing in the most effective way for the reservoir; as a result a significant amount of oil was left behind. Any gas produced was just flared.

Although operations today offshore look very different and you won't find this level of intensity, you will find many of the same issues such as competition for reservoirs, building excess infrastructure and excessive operating costs. Bear in mind also that not all companies perform to a high standard. There is plenty of evidence of this in reports produced in Norway and the UK.

Carnarvon Basin



To illustrate what we face, here is a map of the Carnarvon Basin (the source is Wood Mackenzie). The red is gas- and we have a lot of it compared with oil, which is green. Because of the limited size of the domestic gas market monetising this has traditionally involved liquefying it and shipping it overseas.

The 1960's situation of geographically well separated developments is now changing- so you get constant discussion in the press about owners of gas being able to get access to existing pipelines and LNG facilities.

Surprisingly you see practically no discussion about how sharing infrastructure will increase company profits and the tax take of Australia, or of decommissioning cost. Bear in mind that every new platform or plant will have to be decommissioned and the cost of that is tax deductible. This is an increasingly strong imperative to make the most use of existing infrastructure. Decommissioning cost is another elephant in the room.

The Norwegians got many of these issues early on. The UK addressed them when they suffered a massive decline in tax revenue from petroleum in the early part of

this decade. This caused the UK to get the founder of the Wood Group, Sir Ian Wood, to review the regime.¹

Sir Ian introduced his 2014 report by saying that in the early days when large fields were found by major operators the free market model worked well. But now with a significant increase in the number of fields, new discoveries being much smaller, fields being marginal and in both cases reliant on access to ageing infrastructure, there was a need for change. Typically this happens to all basins as they mature- and this is what Australia is facing. But we have not changed our regime or significantly strengthened our regulator, as Norway and the UK have done.

The UK made a radical change which was to require all licensees to maximise economic recovery of UK petroleum. This is called MERUK. MERUK means that oil companies have to focus on the UK's interest as well as their own. It seeks to deal with the conflict of interest I mentioned earlier. What I suspect made all the difference is that when Sir Ian's proposals were assessed they were estimated to produce significant additional production and cost savings.²

I can't estimate the benefits that would accrue to Australia if we followed the UK because as far as I know government has not done the exercise. I suspect they would be substantial. You also won't find any reference to this kind of thinking in most publications; for example the APPEA report on the economic value of developing the Great Australian Bight.³ Nor by the way will you find any reference to decommissioning.

In the book I stress that industry, as the other party to the bargain, needs to be brought along with any change and can in fact lead change. Companies will be under increasing pressure to act sustainably and maintain the confidence of the communities on which their business rely. The Hayne Royal Commission is just the

¹ The Wood Review can be found at <https://www.ogauthority.co.uk/about-us/what-we-do/the-wood-review/>.

² 3 to 4 billion barrels of oil equivalent (32.8 billion pounds in revenue from extra production and eight billion pounds of additional revenue from a reduction in costs)

³ This was prepared by ACIL Allen Consulting and is available at <https://www.appea.com.au/wp-content/uploads/2018/08/Economic-Impact-of-Petroleum-Development-in-the-Great-Australian-Bight-report.pdf>

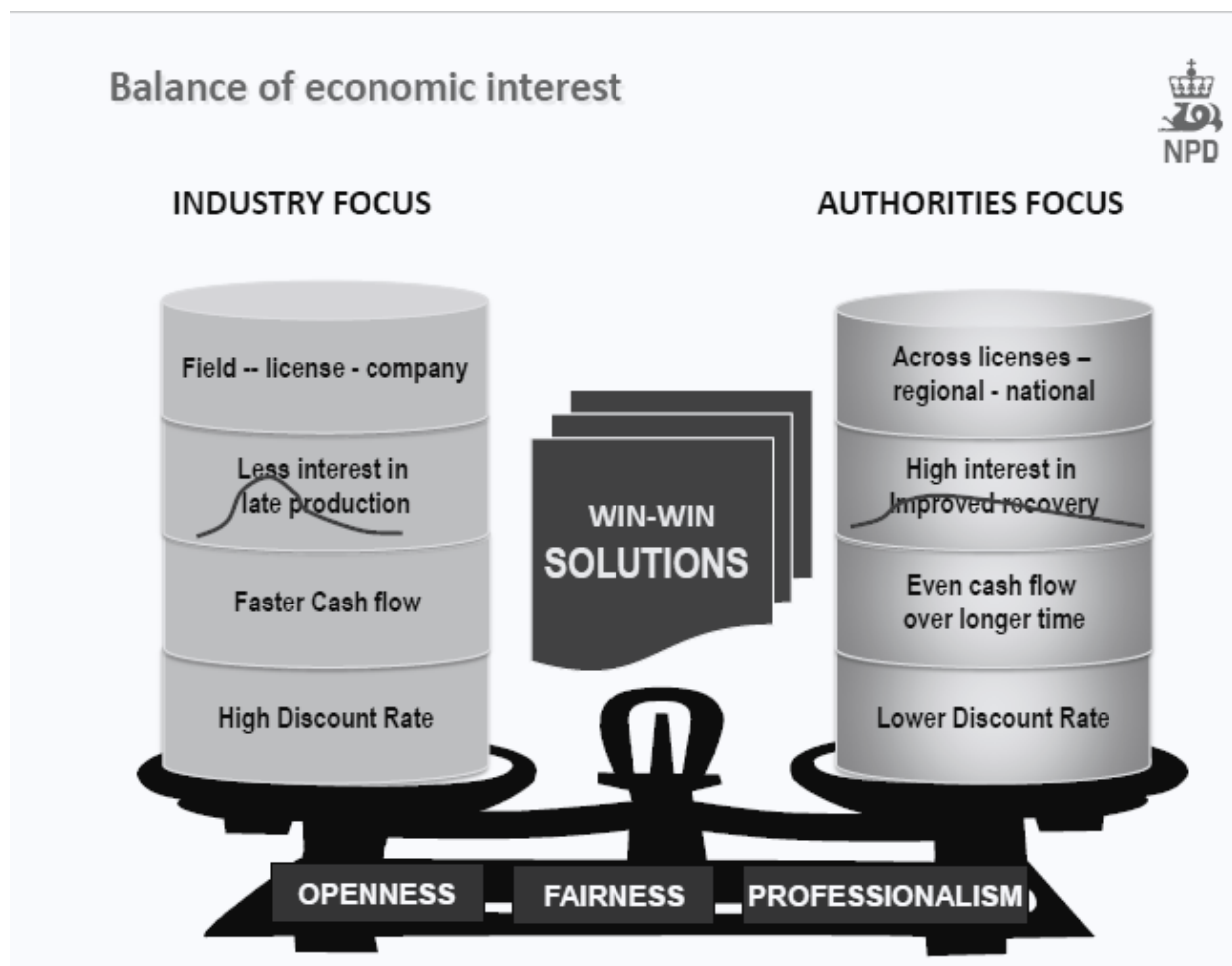
most recent example of how companies struggle with this, and why they need oversight.

Woodside was not one of the companies I studied for the book, but I recommend to you their 2017 Sustainable Development Report and Tax Transparency Report. Have a look at the table of value generated and their energy efficiency target in the former.

However, good as those are, they are not project specific and do not detract from my central thesis that the licensing regime needs to evolve to protect the national interest. The bargain between the companies and the state also needs to evolve with it.

But is that possible? An important picture in the book is this one:

Figure 5.3: Balance of economic interest⁴



⁴ Petroteam a.s.

This comes from the Norwegian Petroleum Directorate.

The point about this is that notwithstanding differences in the commercial interests of the parties (for example the company focus on its licence area and government on the region) it should be possible to arrive at outcomes which work for both parties, if the focus is on sustainable profitability- an obvious example is sharing infrastructure and joint operations which reduce costs and so increase profits and tax revenue- a win for both.

Let me give you my top three examples of what other countries are doing which illustrate how they have moved ahead of us.

Better access to Information

Regulators in both Norway and the UK can attend joint venture meetings and get copies of minutes. So this means they are aware of what companies are doing and how they are going about it. The regulator in Australia does not get this information. Norway and the UK show different ways to use it:

: The Norwegian approach is based on the idea that the companies are their agents in extracting the nation's petroleum. They want the companies to make the best decisions. They use their knowledge of what everyone is doing across the basin, including best practice and new techniques, to challenge poor thinking and poor solutions.

: The OGA is taking benchmarking company performance to a new level. They publish anonymised league tables for things like recovery, efficiency and operating cost which they then follow-up in stewardship reviews. I think this is likely to prove to be an extremely strong incentive for companies to improve performance- no one wants to appear to senior management as an under-performer.

Think what that might mean in an Australian context. Just consider how much of the gas going into an LNG plant is used to liquefy it.

As far as I can gather the answer seems to be between 8 and 10%.

Do you think performance would improve if anonymised data was published showing which operator was using least gas in producing LNG or otherwise running the most efficient plant?

Being energy efficient in production is an example of another aspect of a country getting the best out of petroleum- which you could call avoiding waste or more broadly ensuring operations are sustainable and fair to future generations. This is what my research is looking at next.

The sorts of questions which I suggest we need to be thinking about include why it is not wasteful to build new infrastructure when you have existing capacity. Also how can that be fair to the future generation which has to pay for the decommissioning but gets no economic benefit? This leads into:

Access to upstream infrastructure

Currently upstream infrastructure is excluded from any access regime in Australia.

The classic argument here is that companies will negotiate these arrangements if it is commercially sensible, but as Sir Ian Wood convincingly explained- they just don't do it.

Norway and the UK have what you need as a minimum, which is a system for providing information about capacity and allowing for a potential user to request the commencement of negotiations with an owner and for the petroleum regulator to monitor those negotiations.

Review economic and infrastructure outcomes in Field

Development Plans

There is a critical step in the development of any project which is the approval of a field development plan. The Norwegians have for many years reviewed these for the most effective use of infrastructure and economic outcomes. The UK is doing something similar. Australia does not.

Our rules retain an overriding focus on early development rather than the economic quality of development. This comes through in the Minister's 2018 statement of expectations of NOPTA, our petroleum exploration policy and the 2019 Resources Statement.

That focus is exemplified by the huge time and cost spent on evaluating whether a company should be granted a petroleum retention lease which allows it to defer production until it becomes commercial.

Yet when the project does go into production the government does not review the economics of the company's proposals or hold it to its cost estimates.

Concluding Comment

One of the themes of the book is that to have good governance and stewardship you need clear objectives. I will conclude by pointing out the last elephant in the room which is that our regime has very limited objectives. One of the reasons the Norwegians are best in class is because they are specific about their direction: I will leave you with what their constitution says and two of their main objectives. There is of course also their Oil Fund:

Norwegian example

Norwegian Constitution Article 112: “Every person has the right to an environment that is conducive to health and to a natural environment whose productivity and diversity are maintained. Natural resources shall be managed on the basis of comprehensive long-term considerations which will safeguard this right for future generations as well....”

Norwegian Petroleum Act contains

The Society Benefit Principle (as I call it)- Petroleum Act 1996 Section 1-2 ‘resource management of petroleum resources shall be carried out in a long-term perspective for the benefit of the Norwegian society as a whole....’

The Prudent Production Principle (as I call it)- Petroleum Act 1996 Section 4-1... ‘the production shall take place in accordance with prudent technical and

sound economic principles and in such manner that waste of petroleum or reservoir energy is avoided’.

1.1.3 Gaps in the Australian assurance model- field development plans, project delivery and stewardship

There are many factors that a licensee cannot control in what is a very challenging endeavour. But factors that it can control in many situations, and therefore should manage, include delay, cost overruns and engineering and planning mistakes. These occur quite frequently.⁵ States do not deal with their effects by providing for compensation or other adjustments to the terms of the bargain. Their approach is to decrease risk by verifying the plans and capabilities of licensees. There is follow up through reporting and enforcement of regulations.⁶ This can be described as a verification or assurance approach, which is also applied offshore to safety and environmental protection through safety case and environmental plan approval. In the licensing context the main plans are exploration programmes and field development plans. One of the important questions to consider is what are the gaps in the Australian assurance model and how should they be closed?

The checkpoint of field development plan (FDP) approval is designed to review viability of projects. At the most basic level, this is concerned with broad tests like good oilfield practice used in Australia and the UK. At the more advanced level seen in Norway and the UK, it will review the economic viability of the project, including the use of infrastructure. In Norway this extends to joint operations. The FDP approval process works as assurance of the soundness of the development plan. In the Norwegian regime efforts are also made to assure the soundness of the licensee group. As mentioned in Section 1.1.2 this is an obvious gap currently in Australia.

⁵ See OGA, *Lessons learned from UKCS Oil and Gas Projects 2011-2016* (2017) ('Lessons Learned') <<https://www.ogauthority.co.uk/news-publications/publications/2017/lessons-learned-from-ukcs-oil-and-gas-projects-2011-2016/>>.

⁶ For example, AOPPGGSA s 574A; NPA s 10-3.

The OGA has also moved to assure the quality of project execution based on its review of projects between 2011-2016 that revealed the importance of sufficient planning and ordering of long-lead items. This caused the OGA to introduce guidance on robust project delivery, require a project execution plan as part of its approval of the FDP and attend major project review meetings. Norway did a similar review. Australia has not done one.

As noted above, the OGA is taking benchmarking company performance to a new level. It publishes anonymised league tables for things like recovery, efficiency and operating cost which they then follow-up in stewardship reviews. This is both an extremely strong incentive for companies to improve performance, but also a means for them to improve. Most countries require licensees to produce significant amounts of data in annual and other reports. But often the data does not focus on improvement. The OGA has reduced the amount of data it collects but also made it more useful. This is one of the reasons why licensees were prepared to accept the OGA's changed approach. That approach also means that its stewardship reviews are more targeted and less burdensome.

1.2 Structural gaps in Australia

1.2.1 Accountability and the size of the prize- MERUK

I strongly urge the Committee to recommend that Australia undertake a Wood type review. There are two reasons for this. One of the important outputs from the Wood Review and subsequent impact assessments was an estimate of the size of the prize- the revenue value of making improvement. This exercise must be done in Australia both to see what the potential economic gains are, but also in terms of good regulation to ensure that the benefits of increased regulation outweigh the costs. Also this exercise can be used to increase accountability of the regulator to achieve specified monetary targets and other outcomes. That does not happen currently in Australia. Secondly, there are differences between Australia, Norway and the UK. While I suggest that issues like the big distances in Australia, remoteness from markets and the lack of manufacturing capacity tend to be exaggerated, they do

have some significance. Importantly, there are different cultural and legal issues, particularly Australia's federal system.

The key recommendations of the Wood Review were creating an independent and stronger regulator in the Oil and Gas Authority and dealing with the implicit conflict between national and commercial interest. In the UK the latter was done through the MERUK strategy. The second reason for Australia to do its own review is that I consider that there are opportunities to learn from the UK's experience and develop it. In particular it seems to me that there is a real issue in the balance between the protections for existing licensees and maximising the UK's recovery. In my view it would be a bad idea to trust such a review to an Australian body like the Productivity Commission or even a department of government. It needs a reviewer with a broad range of skills, industry knowledge and strong independence like Sir Ian Wood.

1.2.2 The size and role of NOPTA, NOPSEMA, ATO and Treasury

When I last checked the numbers in 2015 the relative positions of Australia, Norway and the UK and their regulators looked like this to me. The key point is the small size of NOPTA relative to Australia's petroleum revenue and gas reserves.

In comparing the resource management of Australia, Norway and the United Kingdom it is important to understand the size of the industry. Norway has the largest oil reserves (8 thousand million barrels) and Australia the largest gas reserves (3.5 trillion cubic metres). Norway had the largest revenue from petroleum by a significant margin. The revenue figures and cost of regulation have been converted into United States dollars to make comparison easier. Australia's revenue from petroleum in 2015 was US\$ 6,079,58 million, and with several large LNG projects coming on stream can be expected to grow. Although the United Kingdom's revenue from the North Sea is declining the figure for 2015 of US\$ 52.71 million is an aberration caused by a reversal of 562 million pounds of petroleum revenue tax which had been abolished. The previous year's revenue was 2,217 million pounds (US\$ 1,711 million).

This is summarised in the Table 1.2.

Table 1.2: 2015 Comparative Table (US\$)	Australia	Norway	United Kingdom
Proved Crude Oil Reserves (Thousand Million Barrels Oil Equivalent) ⁷	4.0	8.0	2.8
Proved Gas Reserves (Trillion Cubic Metres) ⁸	3.5	1.9	0.2
Production of Crude Oil (Million Barrels Oil Equivalent) ⁹	140.62	710.97	352.27
Production of Natural Gas (Billion Cubic Metres) ¹⁰	67.10	117.15	39.65
Revenue from Petroleum Industry (USD Million) ¹¹	6,079.58 ¹²	24,621.76 ¹³	55.71 ¹⁴

British Petroleum, *BP Statistical Review of World Energy*, 2016, 6. 'Crude oil' includes crude oil, shale oil, oil sands and natural gas liquids; and excludes liquid fuels from sources such as biomass and derivatives of coal and natural gas.

⁸ British Petroleum, *BP Statistical Review of World Energy*, 2016, 20.

⁹ British Petroleum, *BP Statistical Review of World Energy*, 2016, p 8. Figures in the above table were calculated by multiplying the 'Thousand Barrels Daily' figures provided in BP's Statistical Review by 365.

¹⁰ British Petroleum, *BP Statistical Review of World Energy*, 2016, 22.

¹¹ Bloomberg, *Bloomberg Market Exchange Rates* [Online], (Accessed 11 August 2016). All currencies have been converted into USD. 1 USD = 1.29869 AUD; 1 USD = 1.2957 GBP; 1 USD = 0.1214 NOK.

¹² See Australian Petroleum Production & Exploration Association, Annual Financial Survey, <<http://www.appea.com.au/industry-in-depth/industry-statistics/>>

Note: Revenue from Petroleum Industry is based on 2014 figures.

¹³ Note: Statoil Dividend has been deducted from total government net cash flow from petroleum activities, refer to Norwegian Petroleum Directorate, *The Government's Revenues*, May 2016, <<http://www.norskipetroleum.no/en/economy/governments-revenues/>>

¹⁴ Government Revenue from oil and gas production for the years 2013/14 and 2014/15 was £4,742 million and £2,217 million respectively. The rate of petroleum revenue tax was reduced permanently to zero, with effect from 1 January 2016. Petroleum revenue tax for the period 2015/16 amounted to negative £562 million, refer to GOV.UK, Government revenues from UK oil and gas production, 2016, <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/534505/UKCS_Tax_Table_July_2016.pdf>.

Regulation Budget (USD Million) ¹⁵	7.65 ¹⁶	50.19 ¹⁷	19.95 ¹⁸
Regulation Personnel	44 ¹⁹	214 ²⁰	144 ²¹

The regulation budget shown in Table 1.2 only takes into account the cost of NOPTA, Norwegian Petroleum Directorate and OGA. So it does not show the cost of personnel in Australia's Department of Industry (DOI) , the Norwegian Ministry of Petroleum (NMPE) and the UK's Department of Energy and Climate Change. It also does not show personnel at the state level in Australia. NMPE has a number of personnel who are involved in offshore petroleum resource management and DOI a lesser number.²² NOPTA has far fewer people than either NPD or OGA and a commensurately much smaller budget.

It seems to be a conundrum in all jurisdictions as to how to engage Treasury and the Tax Office in oil and gas administration. Sir Ian Wood recommended a tripartite strategy involving the OGA, Treasury and Industry but the role of Treasury did not

¹⁵ Bloomberg, *Bloomberg Market Exchange Rates* [Online], (Accessed 11 August 2016). All currencies have been converted into USD. 1 USD = 1.29869 AUD; 1 USD = 1.2957 GBP; 1 USD = 0.1214 NOK.

¹⁶ See National Offshore Titles Administrator, *2015 Operational Review of the National Offshore Petroleum Titles Administrator: Report for the Minister for Industry and Science*, September 2015, <http://www.nopta.gov.au/_documents/2015OperationalReviewOfNOPTA.pdf>

¹⁷ See Norwegian Petroleum Directorate, *Proposed National Budget 2015*, October 2014, <<http://www.npd.no/en/news/News/2014/Proposed-national-budget-2015/>>

¹⁸ Oil & Gas Authority, *Maximising Economic Recovery: Annual Report and Accounts 2015-16*, July 2016, <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/539381/OGA_ANNUAL_REPORT_15-16.PDF>

¹⁹ See National Offshore Titles Administrator, *2015 Operational Review of the National Offshore Petroleum Titles Administrator: Report for the Minister for Industry and Science*, September 2015, <http://www.nopta.gov.au/_documents/2015OperationalReviewOfNOPTA.pdf>

²⁰ See Data on the Political System, *Norwegian Petroleum Directorate*, 2015, <<http://www.nsd.uib.no/polsys/data/en/forvaltning/enhet/2813/ansatte>>

²¹ Oil & Gas Authority, *Maximising Economic Recovery: Annual Report and Accounts 2015-16*, July 2016, <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/539381/OGA_ANNUAL_REPORT_15-16.PDF>

²² Based on Regulator interviews on 14 June and 28 June 2016, Australia has 20 in ACDI and Norway has 35 in NMPE.

apparently extend to monitoring the tax payable on individual projects or doing anything about less than optimal returns. The whole point of a nation disposing of its national petroleum assets is to derive economic benefits, particularly tax. In effect it is a sale by the nation of its property for tax revenue. It therefore seems bizarre that, so far as I can gather, Treasury and the ATO apparently sit off to one side and, for example, are not involved in the review of the approval of projects. In my submission there should be a clear line of sight reporting to the tax collected by individual projects.

It seems equally strange that NOPSEMA should be in sole charge of giving offshore project approvals under Part 1A of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009. If more developed, these project approvals, that occur at an earlier stage than field development plan approval, could be a very useful tool to estimate the desirability of projects and set objectives for them. These are required to have environmental performance outcomes consistent with ecological sustainable development. One of the important points of 'sustainable development' is that the benefits should exceed the costs- otherwise what is the point? In my submission NOPTA, and perhaps Treasury, should be participants in this approval and it should be made clear that it will involve a review of the economics of a project and the tax payable.

SAMPLE RECOMMENDATIONS FROM SECTION 1

These are some of the suggested recommendations from Section 1.

1. NOPTA should have the right to attend Licensees' joint venture meetings and get copies of minutes.
2. Regulation 4.07 of the Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2009 should be amended to include economic and tax payable information in the information to be submitted to NOPTA. The approval criteria in regulation 4.06 should include a project providing an appropriate return to Australia in the form of tax payable and also appropriate infrastructure sharing arrangements and conduct of joint operations.

3. Australia should introduce a regime into the OPGGSA to allow access to upstream infrastructure based on the Norwegian model.
4. Australia should conduct a Wood type review of key factors which affect Australia's performance in relation to its oil and gas reserves and develop recommendations designed to enhance recovery of those reserves to maximise the net benefits to the Australian people. The review should include estimates of benefits achievable, suggested objectives to be incorporated in legislation and estimates of the costs of increased regulation.
5. Offshore project approvals under Part 1A of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 should be developed to evaluate the economic costs and benefits of projects and the projected return to the nation.

Section 2- Terms of reference paragraph (b) arrangements that could be considered to maximise benefit to the public of Australia's national oil and gas resources, cognisant of:

- i. sovereign risk,
- ii. existing property rights, and
- iii. federal and state jurisdictions; and

2.1 Sovereign risk and existing property rights

I regard this risk fairly broadly as government changing the rules of the game for projects. The risk of Australia compulsorily acquiring upstream petroleum interests, that is nationalising them, is in my opinion virtually non-existent, However there is a persistent desire to tinker with tax system in Australia and of course there are things like the potential exercise of the export trigger if Australia has domestic gas shortages.

I would argue that most of the recommendations I make in this submission do not affect sovereign risk- this is largely because the oil companies are already experiencing them in Norway and the UK and they do not increase tax. Having said that I am sensitive to companies needing stability if they are going to make long-term

investment decisions. Hence they not unsurprisingly get alarmed by sudden suggestions on things like carbon pricing or export restrictions.

The simple way to deal with these concerns is consultation and in some cases to only apply changes from a date in the future. Change should be through a steady arc, rather than involving any major surprises.

2.2 Measures of risk and attractiveness

My only comment in this area is to treat with caution international surveys of the relative attractiveness of different countries. Unsurprisingly countries with least regulation and protection of the national interest appear most attractive to industry.

2.3 Federal and state jurisdictions

Australia's Offshore Constitutional Settlement which sets the framework for responsibilities between the Commonwealth and the states was entered into in 1979. It needs a significant overhaul. The common mining code now represented by the OPGGSA is significantly fractured as different states have updated their legislation. The OPGGSA is based on principles arrived at in the 1960s and also needs significant review. As already mentioned the Productivity Commission identified in 2009 that the Joint Authority structure was possibly no longer optimal.

There are two critical problems that need to be addressed. The first is the squeeze out of state administrations which has occurred as a result of the creation of NOPTA and NOPSEMA. This is caused partly by the battle for talent, but I suspect more significantly by the fact that the states no longer get an income stream from licence other fees. The Northern Territory not devoting those fees to petroleum administration was one of the root causes of the 2009 Montara oil spill and the subsequent changes introduced in 2011.

The second problem is the dissonance produced by the Australian federal system. States can levy royalties, so their interest is generally in achieving production and not on the economic quality of production. The Commonwealth levies income tax and resource rent taxes and so is interested in profitable production (or should be). Yet it does not control state resources and does not appear to incentivise Australian states and territories to improve the profitability of production.

Finally many of the comments I have made for change to the OPGGSA and regulation under it are equally applicable to state onshore and offshore legislation. An example is the consideration of economic factors in field development plan approval. One way to achieve that is to update and reinvigorate a common mining code for petroleum across all jurisdictions.