

Review of Petroleum Resource Rent Tax

**Submission to Mike Callaghan, The Treasury, Langton Crescent,
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About the author

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1,1 This submission notes the first of the terms of reference which refer to the need to provide an appropriate return to the community on Australia's finite Australian oil and gas resources while supporting the development of those resources, including industry exploration, investment and growth. Its aim is to draw your attention to changes in the context of the development of Australia's oil and gas resources which are having a profound effect on those resources and the capacity to maximise the return from them. It is based on research currently being undertaken by the writer, examining how countries manage their offshore conventional petroleum resources, and focusing on Australia, Norway and the United Kingdom (UK). Brief details are given in the final section. The submission touches on the following areas on which you ask for comment:

- The overall performance of the PRRT
- The test and scope of deductible expenses
- The application of PRRT to gas projects and floating LNG

1.2 Australia's licensing regime was designed in the 1960's and given effect to in the *Petroleum (Submerged Lands) Act 1967 (Com)* which was intended to be a common mining code followed by the states and Northern Territory. Notwithstanding rewrites and amendments culminating in the current legislation, the *Offshore Petroleum Greenhouse Gas and Storage Act 2006 (AOPGGSA)*, the structure

remains substantially the same as in 1967.¹ Its essence, which is the norm in many common law countries which used concessions to develop natural resources, is the grant to a licensee, usually an oil company or more commonly oil companies acting together in a joint venture, of the exclusive right to explore for petroleum in a defined licence area. If the licensee makes a commercial discovery it will have the right to develop the discovery and then keep the petroleum produced.

1.3 Although some host countries, for example the United States of America in the Gulf of Mexico, seek a financial return through cash payments for the grant of the exploration rights, most countries using a licensing system get their major return through taxes on the profits produced by the licensee, and through other fiscal measures such as royalties and indirect taxes. In Australia's case they include the PRRT.

1.4 The situation in the 1960's was very different from now with Australia's oil provinces being largely frontier or certainly immature. Now, in common with Norway and the UK, Australia's oil and gas industry faces different and more complex challenges. Not least of these, which has been discussed in other commentary on the PRRT, is the fact that the licensing system was designed without big gas projects, extensive infrastructure and the need to make best use of that infrastructure for a region in mind.

1.5 There are three factors arising out of the design of Australia's licensing system which have a profound effect both on resource management and also PRRT. The first is that licence areas are drawn on the surface in graticular blocks, and therefore do not necessarily cover discrete petroleum systems under the sea bed. Those systems can extend into other licence areas. A particular feature of conventional petroleum, as compared to hard rock, is that it will move through a reservoir to a well puncturing it. Hence the development of the rule of capture giving title to petroleum produced in a licence area irrespective of where it comes from. The second is that licence areas give exclusive rights to a licensee over the petroleum it produces in its licence area. Therefore, a licensee will be focused on making the maximum profit that it can from its licence area. The third is that licence system did not impose

¹ It was rewritten as the Offshore Petroleum Act 2006 but was then extended to cover greenhouse gas storage, for which licences are also used and which can use depleted petroleum reservoirs.

obligations on licensees requiring them to take regional or national interests into account to balance the licensee's focus on its area.

1.6 Each of Australia, Norway and the UK has produced reports in recent years reflecting on the dilemmas of oil and gas development and production in current circumstances. They are the Norwegian Ministry for Petroleum and Energy white paper *An Industry for the future- Norway's petroleum activities* (Norwegian Industry Review) in 2011,² the Wood Review in the UK in 2014³ and the Australian Government Department of Industry, Innovation and Science, *Offshore Petroleum Resource Management Review Interim Report* in 2015 (AOPRMR Review).⁴

1.7. The Wood Review concludes that instead of large fields with large operators, where light touch regulation might have been appropriate, countries like the UK have to deal with many more fields, smaller discoveries, marginal fields and greater inter-dependence.⁵ The AOPRMR Review makes a similar comment stating that :”Our major production provinces are now maturing, with a greater understanding of the economic and geological interconnectivity between fields and projects. A particular challenge in these areas lies in optimising overall resource recovery across multiple plays, and by utilising smaller finds and making full use of infrastructure”.⁶

1.8 This brings into prominence a divergence of interests between licensees and the state. A licensee will focus on profit from its licence area and not on regional and national interests which are likely to lessen profits. But the state will want to optimise overall recovery in particular by making best use of aquifer pressure and also, as the AOPRMR Review suggests by utilising smaller finds and making full use of infrastructure.

1.9 The UK has dealt with this by the introduction of a strategy (here referred to as MERUKS) containing a central obligation requiring relevant persons in the exercise

² Available at https://www.regjeringen.no/globalassets/upload/oed/petroleumsmeldingen_2011/oversettelse/2011-06_white-paper-on-petro-activities.pdf accessed 30 January 2017.

³ Available at <http://www.woodreview.co.uk/> accessed 30 January 2017.

⁴ Available at <http://www.industry.gov.au/resource/UpstreamPetroleum/Pages/Offshore-Petroleum-Resources-Management-Review.aspx> accessed 30 January 2017..

⁵ Wood Review, 1.

⁶ AOPRMR Review, 1.

of their relevant functions to “take the steps necessary to secure that the maximum value of economically recoverable petroleum is recovered from the strata beneath relevant UK waters”.⁷ MERUKS and a new regulator, the Oil and Gas Authority (OGA), came into effect in 2016.⁸ This is a dramatic change because it seeks to get licensees to focus on the UK’s economic interests as well as their own, which is in strong contrast to the previous approach to licences in the UK which was focused on the individual licence area rather than regional or national issues. This is the same as the position in Australia. Other countries are following the progress of MERUKS, and there is little doubt that they will adopt some of its ideas. At the same time the taxation system was reviewed in the UK with a view to making it more attractive for companies to invest in the North Sea.⁹

1.10 It is outside the scope of this submission to set out in detail why I strongly disagree with the statement in the AOPRMR Review that the Australian regime “provides for the effective long-term management of Australia’s petroleum resources through the application of good oilfield practice and the principles of safe and sustainable development”, although I am happy to discuss that with you. Suffice it to say that “good oilfield practice” as defined in the AOPGGSA is a toothless tiger. There is no provision in the AOPGGSA or Offshore Petroleum Greenhouse Gas and Storage (Resource Management and Administration) Regulations 2012 (ARMAR) for the regulator to have oversight over aquifer pressure or to have oversight over the economics of petroleum development or the efficient use of infrastructure. According to my research there is no recorded instance of the regulator directing unitisation of fields. In fact the current regulator is not tasked under the legislation with effective

⁷ The draft strategy was laid before Parliament for scrutiny on January 28 2016, and since neither House passed a negative resolution against the draft, it was produced (came into force) on March 18 2016. It is available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/509000/MER_UK_Strategy_FINAL.pdf accessed 30 January 2017.

⁸ MERUKS is also available at the OGA’s website <https://www.ogauthority.co.uk/>.

⁹ Including zero rating its petroleum revenue tax. See <https://www.gov.uk/government/publications/oil-and-gas-taxation-reduction-in-petroleum-revenue-tax-and-supplementary-charge/oil-and-gas-taxation-reductionin-petroleum-revenue-tax-and-supplementary-charge> accessed 30 January 2017.

management of the resource, nor is it equipped to do so in a comprehensive manner.¹⁰

1.11 I assume that your review of the PRRT will contemplate whether it is fit for purpose in this changing situation. I submit that if there is no constraint on developers of projects doing so in a way that is unduly expensive or uses infrastructure inefficiently, this will result in loss of PRRT revenue (I use the expression infrastructure widely to include not only pipelines but wells, production platforms and other facilities). But not only that, if current operations can leave petroleum incapable of production in the future or make it uneconomic or less economic to produce, that is destroying value for the future. It raises questions of whether that result is ethical in terms of its treatment of the interests of future Australians as well as the current generation. It also raises questions of whether the Australian government is fulfilling its obligations as a steward of this finite resource for the Australian people.

1.12 These are not just matters of pure speculation. Three situations which I respectfully suggest you should consider which are being discussed currently in the public domain are (1) the Ichthys/Prelude projects as discussed recently in Australian Financial Review;¹¹ (2) the fact that the North-West Shelf partners gas plant could need more gas by 2019;¹² and (3) the effect of building 3 LNG plants on Curtis Island with very limited, or possibly no, sharing of infrastructure.¹³

1.13 These three situations have the complexity that they all involve LNG. Although it may run counter to the principles of the legislation, there may be a threshold issue whether to make a special case for LNG. This would be based on its economic importance. But also it may be debateable why the conversion of gas into liquid form so that it can be transported (it being uneconomic to build pipelines to Australia's major markets) renders it an excluded commodity.¹⁴ Be that as it may, questions of

¹⁰ 2015 Operational Review of the National Offshore Petroleum Titles Administrator, 19 available at <http://www.nopta.gov.au/documents/2015OperationalReviewOfNOPTA.pdf>, accessed 30 January 2017.

¹¹ Angela MacDonald-Smith, Australian Weekend Financial Review, 28/29 January 2017.

¹² See Peter Klinger in the West Australian <https://thewest.com.au/business/finance/surplus-to-keep-woodsides-nws-ticking-ng-ya-107591> accessed 30 January 2017.

¹³ Angela Macdonald-Smith in the Australian Financial Review at <http://www.afr.com/business/energy/gas/queenslands-boomtime-lng-scheme-faces-todays-harsh-reality-20151223-qltvb0> accessed in 30 January 2017.

¹⁴ Petroleum Resource Rent Tax Assessment Act 1997 (Com), s 24(1) (d) and the definition of 'excluded commodity' in s2.

expense and infrastructure mentioned at 1.11 are relevant both before the taxing point for LNG (assuming that is at the point of entry to the LNG plant)¹⁵ and after. They are potentially relevant after if a net back method is used to value the sale gas which takes into account the cost of things like the LNG plant and facilities, and possibly if other calculation methods are used. The rules concerning these things seem far from simple.¹⁶ They are relevant before if more efficient shared infrastructure could be used. That is the particular relevance of the Ichthys/Prelude example: why could not the separate joint ventures agree on a single pipeline and LNG plant? A similar point can be made about the Curtis Island example. The point about the North-West shelf example is whether it is in the nation's interest to see that it is fully used, and that resources are not diverted unnecessarily to a new plant, with a consequent high level of PRRT deductions. Of course the level of deductions for the existing plant would need consideration. If the legislation does not currently encourage that result, then that should be reviewed.

1.14 You may by this stage be asking how the PRRT can deal with these situations. I suggest two methods for your consideration. The first method is to limit deductible expenditure if certain broader national interests are not met. This could also involve review of projects to set the baselines of deductible amounts. This could involve setting criteria for the effective use of infrastructure. The second, and I think the more attractive, is to incentivise the behaviour that the nation requires by providing a lower rate of tax for projects that meet set criteria. Both assume that meaningful amounts of PRRT are payable at relevant times.

1.15 The unfortunate fact is that companies appear to be poor at collaboration in Australia, notwithstanding that it would appear to be in their commercial interests in a financial sense. Hence this kind of change is necessary to get them to collaborate. Although this may represent a change in approach it is important to bear in mind that there are opportunities in these and other areas to reconcile the divergences between the state and licensees by sharing improvements which result in lower costs and improved performance. In other words, it can be in the commercial interests of the companies concerned.

¹⁵ See Tax Ruling TR 2008/10 para 12.

¹⁶ See general criticisms of the legislation such as Harold Payne and Marc Lewis *The extended PRRT Regime- Issues for the Petroleum Industry*, Taxation Institute of Australia 2010 National Resources Tax Conference.

Maximising economic recovery and capturing resource rent

2.1 I note that you are an economist and I assume that most of the people advising you are economists. I will therefore try, in my limited way, to place this discussion in a way which an economist might find acceptable. I should also note that many experts, including economists writing about resource rent, may not recognise sufficiently the special nature of offshore upstream petroleum and the factors mentioned at 1.5. Ricardo's work, for example, was in relation to agriculture which does not suffer the same issues as upstream petroleum. There is no mention in the Henry tax review of the significance of these issues or the dangers of duplication of infrastructure or loss of rents through infrastructure.¹⁷ There are however frequent references to "a well-designed tax' which should contemplate these matters.

2.2 But there is reference for example by Garnaut and Clunies Ross that despite the neutrality attractions of resource rent it does not imply that the market provides an ideal allocation. They comment that "It does not exclude the use of special taxes to correct what are called 'externalities', that is to say cases in which the market does not of itself tend to provide the best use of resources".¹⁸ What I am suggesting in the first section is that there is clear evidence that the market does not provide the best use of infrastructure. This is a matter principally of the history of the licensing regime and the change in the context of oil and gas operations. The nature of what is at stake here is how best to maximise economic recovery of Australia's petroleum resources. The importance of the word 'economic' is that licensees are not interested in recovery which does not make a profit, and such recovery is unlikely to yield tax revenue to the state. Hence encouraging economic recovery rather than just recovery becomes significant. This is the foundation of MERUKS.

2.3 It is instructive to note that Norway seems to have largely avoided many of these problems because the concessions it used were different from the classic concession because Norway had a tradition of government control over natural resources. From the early days it had a higher degree of state intervention in petroleum resource management and took a long-term view. Not only does its

¹⁷ See Section C- Land and resources taxes, *Australia's future tax system, Report to the Treasurer*, 2009 Part 2 from 215 available at https://taxreview.treasury.gov.au/content/Content.aspx?doc=html/the_review.htm accessed 30 January 2017.

¹⁸ Garnaut and Clunies Ross, *Taxation of Mineral Rents* (Clarendon Press 1983), 26

petroleum legislation contain infrastructure and economic oversight, but it has sought to prevent the loss of economic rents through controls over pipelines and other important infrastructure.¹⁹ It is also noteworthy that these matters are generally dealt with in the petroleum regime rather than through a separate trade practices or access regime, which adds complexity and delay. Norway is generally regarded as having developed its petroleum resources very well and its approach does not appear to make it a less attractive place to invest or impede exploration, investment or growth.

2.4 The comments made in the 2009 Australian Productivity Commission, *Review of Regulatory Burden on the Upstream (Oil and Gas) Sector* (Regulatory Burden Review) should also be noted.²⁰ This focused on the impact of the regulatory framework on the international competitiveness and economic performance of Australia's petroleum sector and the performance of the economy as a whole. The rationale for government regulation is set out in the following passage:

“Government regulation of industry is ideally designed to address perceived market failures in a way that maximises net community benefits (Box 3.1). Rationales generally relate to ‘public good’ characteristics, externalities, information problems or concerns about monopoly infrastructure (PC 2001a). All these apply in the upstream petroleum sector”.²¹

2.5 The Commission recognised legitimate roles for government in managing oil and gas resources, including providing pre-competitive data and in preventing “spillovers”.²² However, it considered that rationales for overriding commercial decisions about the rate and method of resource extraction appear weaker because

¹⁹ See Helge Ryggvik The Norwegian Oil Experience: a Toolbox for managing resources? Available at <http://www.sv.uio.no/tik/forskning/publikasjoner/tik-rapportserie/Ryggvik.pdf> accessed 30 January 2017.

²⁰ Available at <http://www.pc.gov.au/inquiries/completed/upstream-petroleum> accessed 1 February 2017.

²¹ Regulatory Burden Review, 29.

²² Regulatory Burden Review, 84 and 87. A spillover is an economic event in one context that occurs because of something else in a seemingly unrelated context. A “spillover” of information will occur when a licensee obtains at no cost seismic data lodged with the regulator, which has been paid for by another licensee. An externality is a cost, or benefit that affects a person other than the person who chose to incur it; for example, the owner of a fish farm affected by pollution from an oil well.

generally businesses will have adequate incentives to extract resources efficiently.²³ However, it was not possible for the Commission to study this in detail, as there appears to have been limited material before it concerning some of the issues discussed in this submission, such as sharing of infrastructure, unitisation and collaboration. It was also hampered by the lack of objectives in the legislation for which it reserved its major criticism:

“The rationale for government intervention in petroleum resource extraction seems to be a perceived divergence between private and public objectives based on asymmetry of incentives, or of information, between industry and government or both. However, to the best of the Commission’s knowledge, the overall policy intent of governments in the petroleum resource management area has never been clearly articulated. During the course of this study, various (and in some cases, potentially inconsistent) rationales have been put forward (box 5.1), although the extent to which those reflect actual policy intent is unknown”.²⁴

2.6 The following passage from Box 5.1 illustrates some of the rationales which show possible divergence of objectives between licensees and the state:

“For-profit companies should be encouraged to extract and commercialise all discovered petroleum resources, subject to a number of conditions that include:

(a) The extraction methods should maximise the overall recovery of the total resource discovered, in a manner consistent with principles of intergenerational equity but such that the investor concerned will still make a commercial return. It is recognised that that maximising overall recovery may involve additional capital, and may extend the time taken to extract the resource. Both of these factors may reduce the economic returns to the company concerned”.²⁵

2.7 What the Commission appears to have accepted, however, is that there may be market failure if there is depletion of one field which affects the underlying aquifer (water table) which can potentially affect resource recovery from other oilfields in the vicinity. This would also appear to be a spillover. Presumably it could be argued that

²³ Regulatory Burden Review, 90.

²⁴ Regulatory Burden Review, 85.

²⁵ Regulatory Burden Review, 85.

sterilisation of a small field because infrastructure in the next licence area is not available could also be a spillover or market failure. I would also reiterate my argument that upstream petroleum requires special solutions if the nation is to get the full fiscal and other benefit from it.

2.8 I can anticipate that a number of comments I make in this submission will be subject to criticism from industry, and particularly that some of the changes might increase sovereign risk. I do not think that is the case. But this also raises the question of timing and ‘changing the rules of the game’. I believe that retrospective change is undesirable. My main motivation in writing this submission is to improve the platform for the next round of Australia’s petroleum developments. Australia is in the fortunate position that it is not as far down the road to maturity in its basins as the UK. We therefore do have the capacity to make improvements in the way we do things. Even industry recognises that they did not do the best job in the last round of developments. But the nature of upstream oil and gas is not only that it is internationally competitive, but it involves a bargain between the host country and licensees from which both must benefit if it is to be effective. That is why I recommend to you an approach which incentivises the right behaviour by licensees through appropriate modifications to the PRRT.

Research Project.²⁶

3.1 The research project mentioned above involves a review of the petroleum resource management systems of Australia, Norway and the UK. Aims of the research project are to:

- To identify common features, strengths and weaknesses of the policies and systems of petroleum resource management in those countries, and other selected countries;
- To explain host country involvement in resource management;
- To assess the relationship between the host country and oil companies in relation to petroleum resource management in light of the changing maturity of fields,

²⁶ That research project was made possible by a grant from AMPLA Limited. The views expressed in this submission are those of the author. This submission is not made on behalf of AMPLA or its members.

socio-economic factors and modern concepts of best practice, stewardship and sustainability; and

- To identify new approaches which meet the interests of host countries and oil companies.