3 February 2017

Mr Michael Callaghan
PRRT Review
The Treasury
Langton Crescent
PARKES ACT 2600

Via Email: PRRTReview@treasury.gov.au

Dear Mr Callaghan,

Submission to the Review of the Petroleum Resource Rent Tax ('PRRT')

Origin Energy Limited (Origin) welcomes the opportunity to make a submission to the Review of the PRRT ('the Review'), and other related crude oil and excise arrangements that apply to the onshore and offshore oil and gas industry.

Executive summary

1. The PRRT as currently designed is an appropriate mechanism for taxing economic rents, which are those returns above an ordinary commercial return on investment. Whether the projects that Origin has an interest in are likely to make economic rents, is largely a function of the economic environment over each project's life. However, even if there is an absence of economic rents, the projects in which Origin has an interest are expected to pay approximately $25bn in corporate tax, and more than $10bn in state royalties over full project life, which together represent substantial compensation for the extraction of Australia's non-renewable gas resources.

2. Onshore projects were subject to the PRRT from 1 July 2012, and the PRRT starting base was a mechanism specifically designed to shield existing investments that were made prior to the PRRT being extended. The PRRT starting base ensured that sovereign risk from a changing fiscal regime was minimised, and the value of existing investments was protected. The starting base should be maintained in its current form for existing projects.

3. Fiscal stability and certainty in relation to the petroleum taxation regime in Australia is a desired state to encourage investment and bring new resources to market. Origin has interests in a range of new development opportunities, and stable resource taxation is a key requirement for the Financial Investment Decision ('FID') on each project to proceed.

4. Any changes to the resource tax regime should not be retrospective, and existing projects should be grandfathered from any such changes. Otherwise, such retrospective policy will work as a disincentive to new investment in infrastructure and may limit future resources being developed.

The PRRT is an efficient profit based tax

The PRRT has been described as an "efficient profit based tax", and was initially designed to "strike a reasonable balance between the objectives of satisfying the right of the community as a whole to share in the benefits of profitable offshore petroleum projects, and of providing the participants with adequate returns for the risks they accept in undertaking off-shore exploration and development activities" [1].

The key design principles of the PRRT were considered by the Policy Transition Group ('PTG') in December 2010 as part of the extension of the PRRT to onshore petroleum projects and the Northwest Shelf from 1 July 2012. In its December 2010 report the PTG commented that the diversity of onshore and offshore projects differed markedly to those contemplated when the PRRT was first put in place in 1987, and made recommendations to ensure a level playing field for both projects existing off-shore and those projects transitioning into the regime[2]. In addition, the PTG sought to make recommendations in relation to the PRRT that would provide sufficient certainty to ensure the ongoing viability of existing operations that were transitioning into the PRRT regime, and would create the necessary environment for future development (and in particular not deter the development of new growth opportunities in the petroleum sector).

On 2 November 2011 the Government endorsed many of the recommendations of the PTG, by way of bills to extend the PRRT to onshore projects and the Northwest Shelf, noting the appropriateness of the PRRT as an efficient profit based tax for the growing coal seam gas ('CSG') industry, 'while ensuring the long-term attractiveness in Australian oil and gas extraction is not impaired'[3].

Existing projects that transitioned into the PRRT on 1 July 2012 were provided with a shield in the form of a starting base, which was designed to shield historical investments and prevent the retrospective application of the PRRT[4]. Without the benefit of a PRRT starting base, projects already in existence prior to the announcement of the government's resource tax amendments on 1 May 2010, would have been subject to a significantly modified fiscal regime, creating substantial sovereign risk and damage to future investment opportunities.

Is the PRRT operating as intended?

The PRRT is a profit based tax, designed to provide companies with an incentive to explore and develop resources by allowing a return to companies commensurate with the risks involved in petroleum exploration and development, and only taxing the economic rent generated[5]. As highlighted in the Issues Note distributed by the Review, these 'economic rents' are considered to be those returns "well in excess of the returns necessary to attract commercial investment"[6].

Origin's producing projects off-shore in Commonwealth waters consist of the Bass Gas and Otway projects, which it operates on behalf of various joint venture participants. These are conventional petroleum projects, with sales gas being the primary petroleum product produced and a smaller amount of liquids (LPG and condensate) also produced during processing. Conventional offshore gas projects are typically less profitable than liquids rich oil projects, requiring capital intensive onshore processing stations, and generating revenues over a longer period of time. In contrast, conventional liquids rich oil projects typically feature a short and sharp revenue profile where costs can be recovered more quickly. In short, Origin considers that it is less likely for conventional off-shore gas projects to make economic rents, being those returns that are in excess of those necessary to attract commercial investment.

In relation to onshore projects that transitioned into the PRRT regime on 1 July 2012, it was noted in the Explanatory Memorandum ('EM') to the Bills extending the PRRT in 2011, that the extension of the PRRT to onshore operations was not likely to generate any revenue within the forward estimates

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[1] House of Representatives, *PRRT Assessment Act Amendment Bill 2011, Second Reading Speech*, The Hon Bill Shorten MP, 2 Nov 2011.
[2] *Policy Transition Group Report to the Australian Government, New Resource Taxation Arrangements*, Dec 2010, p 90.
[3] Shorten MP, above n 1.
[4] House of Representatives, PRRT Assessment Act Amendment Bill 2011, *Explanatory Memorandum*, p 3.
[5] Ibid, para 1.12 to 1.13
[6] Review of the PRRT, *Issues Note*, 20 Dec 2016, para 1.1

period[7]. This expectation was not the result of a design flaw in the PRRT, but rather an intended design outcome where the starting base works to shield existing projects against the impact of PRRT. In relation to new onshore projects that may come into existence after 1 July 2012, it is unlikely they would be in a PRRT paying position during the forward estimates period, as they will be in such an early stage of development during that time.

A further issue relevant to the PRRT payment profile of onshore projects, is that they are already subject to significant resource taxation measures, in the form of State and Territory royalty imposts. Such royalties are not efficient in design and are known to distort investment, particularly in relation to marginal projects, or at the end of project life when resource recovery is higher in cost[8]. In addition, these State and Territory royalties are creditable against the PRRT, which results in an additional stream of deductible expenditure which must be consumed before any PRRT payments are made.

Origin's producing onshore PRRT projects consist of the Halladale Speculant resource in Victorian State Waters, interests in the Cooper Basin joint venture (in both South Australia and Queensland), and in the Beharra Springs in Western Australia. Both the Cooper Basin and Beharra Springs projects are mature projects in later stages of project life, where investments were made long ago and State royalties have been paid for many years. In contrast the Halladale Speculant project is a more recent development, but the combination of its early stage in project life cycle and the current economic climate, combine to make the impact of PRRT on the project uncertain at this time.

Impact of PRRT on the CSG to liquefied natural gas ('LNG') sector

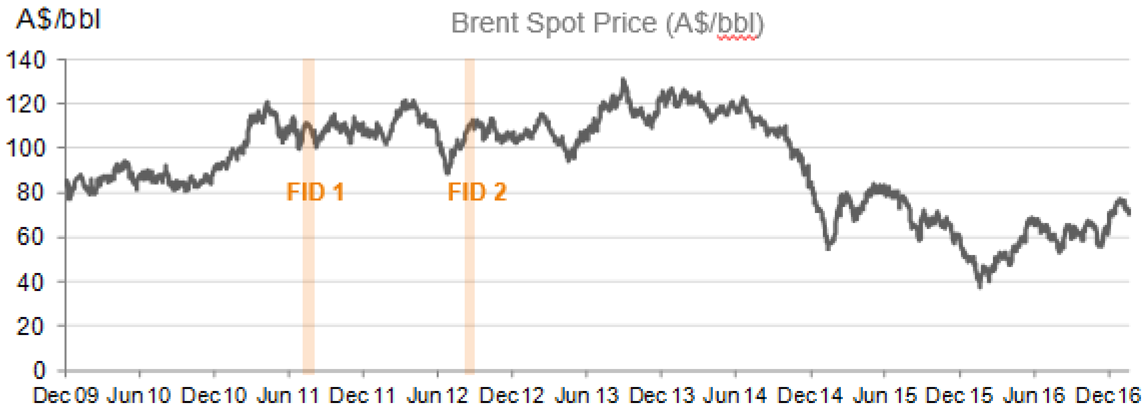
Origin's largest interest in upstream petroleum production is though a 37.5% shareholding in Australia Pacific LNG Pty Ltd ('APLNG'), which is a project with 2 LNG trains holding a nameplate capacity of 9 million tonnes per annum of LNG, and an initial construction cost of A$25.9bn. The project is underpinned by 20 year contracts with Sinopec (7.6 mtpa) and Kansai (1 mtpa), with first LNG production in December 2015 and the first shipment of LNG made in January 2016. In addition to these LNG export activities, APLNG also produces, processes and markets gas to the Australian domestic market.

During its construction phase, the APLNG project created approximately 15,000 jobs at its peak and will continue to support jobs through its lifecycle, with ongoing annual capex and operating costs of more than $2bn. This significant ongoing expenditure is a fundamental difference between onshore and offshore LNG projects, as the onshore projects require a "production line" of CSG wells every year to provide feedstock gas for liquefaction.

In terms of project economics, the LNG facilities have only just been completed and as such the APLNG project would not be expected to pay PRRT for many years. However, as to whether the project is likely to make economic rents, I draw the Review's attention to the project economics. As Fig 1 below shows[9], the FIDs which underpin the APLNG project were taken when the oil price was in excess of $100, but the oil price has significantly reduced now that the project is operational. Whether APLNG makes economic rents in excess of an ordinary commercial return in future is significantly impacted by the economic climate and associated oil price in future years.

[7] Above n 4.
[8] Mayo, W, *Taxing Resource Rent, concepts misconceptions and practical design*, Port Campbell Press 2013, p 109.
[9] Bloomberg

Fig 1: Brent spot price



However, even in these difficult economic times, the APLNG project is still subject to the Queensland State royalty regime and expects to pay more than $10bn in State royalties, as well as corporate taxes of approximately $25bn over its full project life. Key drivers of the amount of royalties paid are the oil price and also USD/AUD FX rate, as revenues are typically denominated in USD. These payments represent significant contributions to the Australian people, over and above the considerable job creation and flow on effects that the project brings to the Australian economy.

Potential future projects and the impact of PRRT

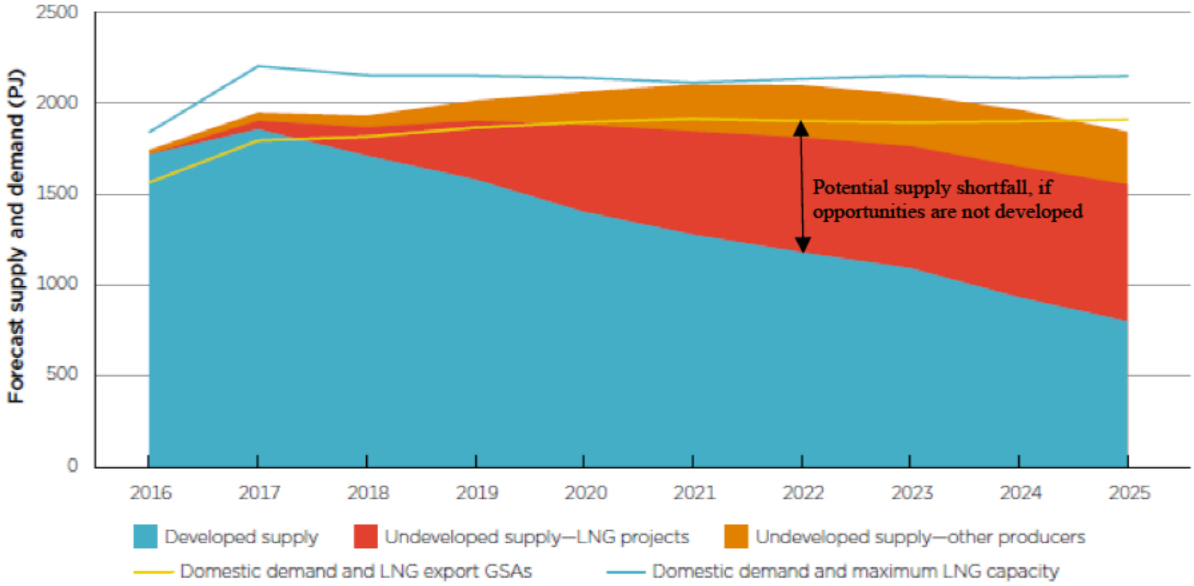
In addition to its producing assets, Origin also holds interests in a range of undeveloped petroleum assets which have the potential to provide significant economic benefit to Australia (see Appendix 1 for a diagrammatic map):

1. The Poseidon resource in Commonwealth waters offshore in the Browse basin
2. The Bonaparte resource in Commonwealth waters in the Bonaparte basin
3. The Ironbark CSG project onshore in Queensland
4. The Waitsia gas field onshore in Western Australia
5. The unconventional gas project onshore in the Beetaloo basin in the Northern Territory.
6. Other permits adjacent to the Halladale Speculant resource in Victorian state waters

However, in order to proceed, each project must meet the criteria required for FID. Fiscal stability and certainty around resource taxation are key requirements for FID, as petroleum projects are typically based on cash flows over long periods of time. Reduction in returns due to changes in the fiscal regime mean that investment decisions will rely on even higher forecast oil prices to proceed.

It is particularly important that these future petroleum projects are developed, as current gas supply is expected to become short in the near future, as shown in Fig 2 below, which may impact energy price stability and energy certainty.

Fig 2: Forecast gas supply and demand balance in the east coast gas market, excluding Arrow, 2016–25



Source: ACCC analysis based on data obtained during the Inquiry, AEMO's *2015 National Gas Forecasting Report* and EnergyQuest, *EnergyQuarterly*, March 2016.

There are significant economic benefits (aside from royalties and tax) that would occur if all potential projects at risk were to come to fruition, such as contribution to gross domestic product, spending on goods and services, employment, and construction of facilities which benefit communities as a whole.

Current projects in which Origin has an interest that are considered to be at risk of viable development amount to:

	Next 10 years	Full project life
Revenue (A $ B)	4.4	15
Development expenditure (A $ B)	5.8	8.5
Production (PJe)	586	2,123
Employment (development phase jobs):	22,000	32,000

Current projects in which Origin has an interest that are considered to have a higher level of certainty, which could provide potential for PRRT revenue amount to:

	Next 10 years	Full project life
Revenue (A $ B)	11.6	32
Development expenditure (A $ B)	8.1	14
Production (PJe)	1,035	2,526
Employment (development phase jobs):	31,000	52,000

Notes:

- Revenue and expenditure are nominal, approximate and based on current price assumptions
- Significant potential upside and downside exists to the information provided
- Employment numbers are forecasts, refer Energy Quest[10] and IPA[11]

[10] Energy Quest (2014). *Oil and Gas Industry Cost Trends: An independent report prepared by Energy Quest for the Australian Petroleum Production and Exploration Association.* Retrieved from: http://www.aie.org.au/AIE/Documents/APPEA-Cost-Report_Final.pdf

[11] Independent Project Analysis, Inc (2012). *The Performance of Australian Industrial Projects.* Retrieved from: http://www.bca.com.au/docs/23453BB8-89E3-42C6-BCB9-9BF49A287C23/the_peformance_of_australian_industrial_projects_final_7-6-2012.pdf

Summary – fiscal stability and certainty is paramount

The oil and gas sector is facing a challenging economic climate, particularly for those proponents involved in the CSG to LNG industry. The prospect of low oil price returns after significant investment, limits the cash flow available for these companies to bring new projects to market. In order for new projects to proceed, with all the job creation and other economic benefits they bring, a stable fiscal regime is needed. Any new imposts or adverse changes to the PRRT will only increase the oil price at which these potential new projects will become economic to develop.

Origin considers that the PRRT is operating as intended. Its application was considered in detail by the PTG in 2010, and its recommendations were endorsed by government when the PRRT was extended, including a starting base that was provided to existing project proponents to shield them from the retrospective application of the tax. The PRRT is designed to tax economic rents, and one only has to consider the public accounts of many companies in the petroleum sector, to see that very few companies are in fact making economic rents. The lower PRRT payments received by government in recent years will be a function of significant investment in the sector, and the current economic environment.

The projects in which Origin has an interest are already subject to corporate tax, and in many cases State royalties which, even if there is an absence of economic rents, still work to provide substantial compensation for the extraction of Australia's non renewable resources. In the event that the Review considers that any changes to the PRRT are required, they should not be made retrospective, something which could be achieved by grandfathering existing projects from any changes, or including other protections. To do otherwise would create sovereign risk and damage the potential for new projects to be brought to market.

Furthermore, Origin endorses and supports the submissions to the Review from the Australian Petroleum Production and Exploration Association, and the Business Council of Australia.

I look forward to hearing the outcome of your Review.

Yours faithfully

Frank Calabria
Chief Executive Officer

Appendix 1: Overview of Origin's petroleum interests in Australia

- FY2016 production **232 PJe**
- **1,204 PJe** of non-APLNG 2P gas, condensate, crude oil & LPG reserves
- **14,935 PJe** of 3P gas reserves (100% of APLNG)

Browse & Bonaparte Basins
Exploration
- Offshore discoveries
- Targeting new resources

Beetaloo Basin
Exploration
- Origin's first shale play

APLNG (Downstream)
Production
- 9 mtpa design nameplate capacity
- 2-3 ships for loading per week at full capacity

APLNG (Upstream)
Production
- Gas: 1,700 TJ/ day
- 530 km pipeline
- 2,600 km field delivery pipeline
- 13 gas processing facilities
- 4 water treatment facilities
- > 1,500 wells

Perth Basins
Production
- Gas and condensate at Beharra Springs

Exploration
- Senecio & Waitsia discoveries

Cooper Basin
Production
- Gas, oil, condensate and LPG

Exploration
- Building an unconventional portfolio

Ironbark
- Progressing towards a development

New Zealand
Production
- Gas, condensate and LPG at Kupe

Exploration
- Proving up resource in Canterbury Basin

Otway
Production (Thylacine/Geographe and Halladale/Speculant)
- Gas, condensate and LPG
- Halladale and Speculant

BassGas
Production
- Gas, condensate and LPG production