



29<sup>th</sup> August 2013

Mr. Ian Blayney MLA  
Chairman  
Economics and Industry Standing Committee  
Parliament House  
Perth  
WA 6000

Dear Mr Blayney

**Committee inquiry into the economic implications of floating liquefied natural gas operations.**

Thank you for your letter of 12<sup>th</sup> July inviting BP Australia ("BP") to provide a submission addressing the inquiry that your Committee is undertaking into the economic implications of floating liquefied natural gas (FLNG). I note that in the terms of reference for the inquiry, the committee intends to investigate the impact of floating LNG operations upon a number of sectors of the Western Australian economy as well as upon State revenue.

BP does not currently participate in any FLNG projects anywhere in the world, although (together with our fellow joint venture participants) we are considering this form of technology for the development of Browse Basin gas resources. Our submission is therefore high level and contextual, and related solely to the Browse project.

Together with its fellow joint venture participants and additionally through the Western Australian Government's Kimberley LNG Precinct selection process, BP has studied a range of onshore development options for the Browse gas resources. These have been as far afield as existing facilities on the Burrup Peninsula, through some 43 sites in the Kimberley, to a greenfield development in Darwin. For a variety of reasons, as detailed below, even the most favoured of these options (James Price Point in the Kimberley) has proven not to be commercially viable despite the investment of several years and billions of dollars in pre investment decision preparatory work and study.

Before considering the economic implications of FLNG, it is therefore worthwhile expanding upon the reasons for the lack of commercial viability of onshore options for the development of Browse, since significant time, effort and money have been

invested in seeking to achieve an onshore development by both the joint venture participants and the State Government. Simply put, the commercial viability of any major resource venture comprises an assessment of all the anticipated costs of a project (such as capital, labour, imposts like domestic gas obligations, restrictions on exports, fixed government royalties and charges, ongoing operational commitments and decommissioning), and whether the anticipated revenue is sufficient to cover these costs and leave an adequate return to the investor. In all projects, but especially those of the scale and longevity of LNG plants, investors will closely consider the risks that their assumptions in these regards could prove wrong. For onshore LNG in Australia, there are increasing challenges on all fronts.

*Costs* have increased substantially for onshore LNG plants in Australia, perhaps understandably given the pressure on scarce capital and labour resources that has arisen during the long resources boom of the early twenty first century. Had it been sanctioned, James Price Point would have been the ninth major Australian LNG greenfield development in the current resources investment phase, after Pluto, Gorgon, Wheatstone, Icythus, Prelude and three coal seam gas based LNG projects in Queensland. These projects are competing for contracts, construction yards, steel and workers with the inevitable impact on prices and availability. Coupled with the high Australian dollar (which increases Australian costs to foreign investors) and the intrinsic cost and scope of undertaking projects in remote and environmentally sensitive regions, this has made Australia one of the most expensive places in the world to build LNG plants onshore.

*LNG export prices* have also been under pressure particularly in the Asian region. The moderation of Asian growth has dampened forecasts for gas demand, whilst the emergence of alternative supply options (including Canadian and East African LNG, LNG exports from US shale gas, and the progression of FLNG technology outside Australia) has combined to bring the prices on offer for long term contracts down from their highs over the past five years.

*Risk* is also a concern in Australia, where on the whole projects take longer and cost more to complete than expected at the time of investment. For example in December 2012, Chevron announced that the cost of Gorgon had increased from US\$43bn to US\$52bn, citing labour costs, low productivity, weather and the strength of the Australian dollar as amongst the reasons. These are all factors that could be expected to challenge any onshore LNG development. Furthermore as they are beyond the control of the investor, they would be factored in to investment decision-making. An example of such risks for James Price Point at the time of Final Investment Decision was that both access to land (through the State Government's compulsory acquisition process) and environmental approval were under legal challenge – and as it happens the State's environmental approval has subsequently been overturned in the Courts, whilst land access is not complete.

Taken together these factors – high and rising costs, lower commodity prices, greater volatility in the risk of further downside outcomes – have ensured that in BP's opinion the Browse LNG project is not commercially viable to be developed onshore at James Price Point in the Kimberley.

Woodside as Operator of the Browse project is better placed to comment on their emerging view of the scale of FLNG local impacts, whilst BP can only comment illustratively. However BP notes that Western Australia is no stranger to offshore oil and gas installations – there are many production platforms and floating production storage and offloading (FPSO) facilities along the Western Australian coastline and have been for decades. They are serviced by onshore marine supply bases, airports and heliports. They are provisioned through local contracts. They are staffed by operators who, predominantly, live in Western Australia. The bulk of routine maintenance work is sourced in Western Australia. And they have contributed to skills, knowledge and technology development in the Western Australian economy: the development of academic centres focussed on petroleum engineering and related disciplines at institutions such as Curtin or UWA has been prompted not just by the development of onshore LNG but by offshore developments as well. So although the precise scope and scale of such activities in support of FLNG is yet to be defined, we might reasonably imagine them to be similar in colour and shape.

In respect of State revenues, the primary direct benefit from Browse (if it can be successfully developed) is likely to be the payment of royalties in connection to that part of the Torosa gas field that underlies state waters, being within 3 nautical miles of Scott Reef. The precise volume and rate of such royalties cannot be determined at this time, with the State and Commonwealth needing to agree how to manage their relative portions of this field and the JV needing to mature its development concept. Conventionally however the rate of State royalty is normally set at between 10–12.5% of the wellhead value of petroleum produced.

In addition, State revenues will be positively impacted through, for example, payroll tax levied upon the wages for WA residents engaged in the activities highlighted above as being likely to be required for an offshore installation – plus the multiplier effects of wages spent in the local economy. The State, like all Australians, will also indirectly benefit from flows of corporate income tax and petroleum resource rent tax to the federal Treasury over time.

There will be benefits to a wide range of sectors in the Western Australian economy, and to state revenues, just as there have been for other offshore oil and gas developments in the State. Moreover, these benefits need to be compared to the alternative: no or significantly delayed development, and no economic benefit, because the onshore 'alternative' does not in fact exist in viable form. It is too soon to be certain whether FLNG can be made to work at Browse or elsewhere, but we respectfully recommend to the Economics and Industry Standing Committee that they urge WA parliamentarians to do all they can to make it so.

A final comment that the Committee might wish to consider relates to the State's energy security. On the face of it, the development of Browse Basin gas resources by FLNG makes little difference to long term domestic gas supplies, as even an

onshore Kimberley development would have been so remote from the demand centres in WA's south west that a supply option was always unlikely to prove viable. However, the matter of long term domestic gas supplies remains a contentious issue in the State, with buyers supporting the need for a domestic gas reservation, and producers arguing that such a reservation deters investment by skewing the supply/demand balance and engineering prices lower than required to competitively attract investment in new supply. Arguably the emergence of FLNG as a technology presents an opportunity for fresh reflection on the policy, and a fresh look at previously considered options. The current Economic Regulation Authority's Inquiry into Microeconomic Reform in Western Australia presents an opportunity to reconsider how a market-led rather than regulation-led approach to this issue could increase supply security and lower the cost of business and investment in Western Australia. The Committee might consider asking the Economic Regulation Authority to ensure it specifically addresses this issue.

Yours sincerely



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