

# **Additional comments from Senators Back, Gallacher and Reynolds**

## **Introduction**

1.1 Senator Chris Back, Senator Alex Gallacher and Senator Linda Reynolds CSC acknowledge the substantial amount of work contained in the Committee's report, and the factual information it contains.

1.2 The following provides the additional evidence provides support for our views and conclusions.

## **Additional evidence Chapter 3 – Regulatory issues**

### ***Ministerial oversight and decision making-expertise***

1.3 We note additional evidence received in relation the benefits of decision-making by an independent statutory authority such as NOPSEMA compared to ministerial decision-making. Dr Malcolm Roberts, Chief Executive Officer of the Australian Petroleum Production and Exploration Association (APPEA) told the committee that:

My view is that we have a very good balance. Ministers have policy responsibility for the framework. They have decision-making powers over what areas are released for exploration. They appoint the board, the CEO. There are opportunities for ministers to decide to attach conditions to the release of acreage.<sup>1</sup>

1.4 In explaining the reasons why the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) was given responsibility for environmental management and assessment, Mr Smith, Chief Executive Officer, NOPSEMA, told the committee that:

...one of the reasons that NOPSEMA was given responsibility for environmental management and assessments was that it was recognised as having particular specialist knowledge with regard to offshore oil and gas, which may well ensure that we are better placed than other options for making decisions under the EPBC Act. I think that has been affirmed by the independent reviews of our performance on our handling of those responsibilities.<sup>2</sup>

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1 Dr Malcolm Roberts, APPEA, *Committee Hansard*, 28 April 2016, p. 7.

2 Mr Stuart Smith, NOPSEMA, *Committee Hansard*, 28 April 2016, p. 59.

1.5 Mr Smith, while noting the strengths of the current regulatory regime, stated that it places the onus on the proponent to actually identify and approach and address issues from relevant persons. He concluded that:

So we think it goes beyond other environmental approvals processes in various ways, and there are strengths.<sup>3</sup>

### ***NOPSEMA's environmental standards***

1.6 NOPSEMA explained to the committee that its environmental and approval processes contain the same essential elements as those of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The key point of difference being that NOPSEMA is required to evaluate all environmental impacts and risks (including those to matters protected by the EPBC Act), and identify appropriate control measures to manage and monitor those impacts.<sup>4</sup> Mr Smith told the committee that:

...the environmental regulations we administer do not just focus on matters protected under EPBC Act, the national environmental significance. It is all impacts and risks. If they are not protected and if there are unacceptable impacts or risks to those parts of the environment, they will not proceed, and that includes social and economic features in the environment as well.<sup>5</sup>

1.7 In contrast, the Department of the Environment and Energy's initial approval process is restricted to the evaluation of impacts and risks only to those matters protected by the EPBC Act. Further detailed analysis and identification of control measures are then addressed separately in action plans post approval.<sup>6</sup>

1.8 Mr Cameron Grebe, Head of Division, Environment, NOPSEMA, told the committee that it is 'worth noting' that NOPSEMA's environmental approvals regulations have been assessed against the EPBC Act's approval process in relation to offshore petroleum activities. Mr Grebe stated that 'that process led to the endorsement of the process we [NOPSEMA] administer as having an equivalent outcome'. Mr Grebe also noted that:

...we have specific obligations that existed under the EPBC Act before streamlining. As Commonwealth officials, the EPBC Act constrains us from approving actions that are likely to have an impact on a number of different things under the EPBC Act, including species recovery plans, plans of management for marine protected areas, and so on. Those are hardwired in legislation and not just a commitment.<sup>7</sup>

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3 Mr Stuart Smith, NOPSEMA, *Committee Hansard*, 28 April 2016, p. 59.

4 NOPSEMA, *Submission 7*, pp 14–15.

5 Mr Stuart Smith, NOPSEMA, *Committee Hansard*, 28 April 2016, p. 59.

6 NOPSEMA, *Submission 7*, pp 14–15.

7 Mr Cameron Grebe, NOPSEMA, *Committee Hansard*, 16 November 2016, p. 34.

1.9 In response to suggestions that the approvals process should be amended to again require the approval of the Department of the Environment, the South Australian Government noted that the former process was 'a duplicative, overlapping assessment process that demonstrably resulted in longer assessment timeframes'.<sup>8</sup>

### ***Transparency of decision making***

1.10 NOPSEMA told the committee that with the exception of information it is required to release by law, it does not typically publicly release information received during its deliberative process. It submitted:

In accordance with the Australian Administrative Law Policy Guide and NOPSEMA's published policies, NOPSEMA does not provide specific comment on the merits of regulatory submissions that are under assessment as any comment may be perceived to bias NOPSEMA's fair and impartial assessment of the submission in question.<sup>9</sup>

1.11 Further, Mr Cameron Grebe, NOPSEMA, stated that:

We have to be mindful, as a regulator, to abide by the administrative law principles that apply to decision making, and, where the information is provided for the purpose of something other than public release, we do not have the authority to release that information.<sup>10</sup>

### ***Industry co-operation***

1.12 APPEA provided evidence to the committee of work it is undertaking with industry stakeholders. It submitted that developing and sustaining relationships between the oil and gas industry and stakeholders is critical to the industry's long-term sustainability. Positive relationships are one of the key ways in which the oil and gas industry are able to manage the potential economic and social impacts on other industries such as fishing.<sup>11</sup>

1.13 In recognition of the importance of stakeholder relationships, APPEA signed a Memorandum of Understanding (MOU) with five of Australia's peak commercial fishing, aquaculture and seafood industry associations. This MOU established principles of co-operation, communication and consultation between APPEA and fishing industry bodies. Under the MOU, industry groups meet regularly through a roundtable process and have committed to seek to resolve issues through better information sharing.<sup>12</sup>

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8 South Australian Government, *Submission 44*, p. 6.

9 NOPSEMA, *Submission 7*, p. 16.

10 Mr Cameron Grebe, NOPSEMA, *Committee Hansard*, 28 April 2016, p. 57.

11 APPEA, *Submission 46*, p. 36.

12 APPEA, *Submission 46*, p. 36.

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## **Additional evidence Chapter 4 – Effects of oil and gas exploration and production in the Great Australian Bight**

### *Economic impacts of oil and gas production*

1.14 The committee received evidence that outlined the potential economic outcomes of oil and gas production in the Great Australian Bight. This included evidence noting the volume of oil imported, and its associated costs. Dr Roberts, APPEA, stated:

About 80 per cent of the oil we use in Australia is imported, costing us about \$34 billion a year. Local production has been falling steadily. Australia has less than 10 years of proven domestic crude oil resources left. Finding a major new local source of oil will help address our widening trade deficit in this vital commodity.<sup>13</sup>

1.15 The Department of Industry, Innovation and Science noted that Australia imports around 75 per cent of the crude oil it refines into liquid fuels and around 50 per cent of the refined liquid fuels in Australia. The department went on to state:

It is important that Australia continues to identify and maintain the potential for access to areas that are moderate to highly geologically prospective for oil and gas hydrocarbons. This will ensure Australia can maximise the exploitation of its offshore oil and gas resources to provide ongoing benefits to the Australian economy and to maintain diverse and resilient energy supplies and sustain our energy security in Australia and the broader Asia-Pacific region.<sup>14</sup>

1.16 APPEA also stated that 'exploration is important as a means of reducing uncertainty about Australia's available petroleum reserves'.<sup>15</sup>

1.17 APPEA also highlighted the economic benefits delivered by ventures in the Bass Strait, as the closest adjacent offshore petroleum province to the Great Australian Bight. It stated that operations in the Bass Strait have contributed \$200 billion to the Australian Gross Domestic Product (GDP) and 50,000 permanent jobs over four decades.<sup>16</sup> Similarly, between 1989 and 2009, the North West Shelf project is estimated to have generated export revenues approaching \$60 billion, contributed \$70 billion to the GDP, and paid state and Commonwealth taxes of approximately \$5 billion.<sup>17</sup>

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13 Dr Malcolm Roberts, APPEA, *Committee Hansard*, 28 April 2016, p. 1.

14 Department of Industry, Innovation and Science, *Submission 4*, p. 6; see also Geoscience Australia, *Submission 70*, p. 2.

15 APPEA, *Submission 46*, p. 11.

16 APPEA, *Submission 46*, p. 3.

17 APPEA, *Submission 46*, p. 11.

1.18 Chevron Australia, in outlining its operations in Australia stated that the direct benefits from its projects include over 1,000 contracts with Australian businesses; 19,000 people working on the Gorgon and Wheatstone projects; \$53 million investment in research and development; and about \$300 million committed to community investment both in Onslow and in the region. Dr Moffat, General Manager, Exploration, Chevron Australia stated:

The benefits directly from the project are immense. They are indicative of the kind of expenditures and benefits that flow from oil and gas. In terms of direct benefits to the federal government, there is some independent analysis. I would like to table this for the committee. This work was done independently and it talks to a revenue benefit from Gorgon and Wheatstone of \$338 billion to the federal government.<sup>18</sup>

1.19 The committee received evidence that exploration in the Great Australian Bight would have brought opportunities and expenditure in a range of services including supply vessels, aircraft and drilling rigs, products and infrastructure, logistics and warehousing, machine shops, environment, medical and catering services.<sup>19</sup>

1.20 Regional Development Australia Whyalla and Eyre Peninsula (RDAWEP) and the Eyre Peninsula Local Government Association (EPLGA) stated that to date activities in the Great Australian Bight have had a 'positive impact on the demand for food and accommodation, and transport services, including regional airlines and fuel sales (estimated at \$5–10million)'.<sup>20</sup> It further stated that:

GAB oil and gas activities have had a positive economic impact in the region to date. The most conspicuous economic impact has been the airport upgrade at Ceduna associated with the fuel dump and helicopter facilities. Airlines, hotels, consumable and fuel suppliers have enjoyed greater and not insubstantial sales revenue created by this activity.<sup>21</sup>

1.21 The RDAWEP and EPLGA concluded:

...if oil and gas production is developed at some time in the future, the economic impact to this region will be transformational and will remove many of our current constraints to regional development at a social and economic level.<sup>22</sup>

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18 Dr David Moffat, General Manager, Exploration, Chevron Australia, *Committee Hansard*, 16 November 2016, p. 45.

19 Government of South Australia, *Submission 44*, p. 12.

20 Regional Development Whyalla and Eyre Peninsula/Eyre Peninsula Local Government Association, *Submission 83*, p. 4.

21 Regional Development Whyalla and Eyre Peninsula/Eyre Peninsula Local Government Association, *Submission 83*, p. 5.

22 Regional Development Whyalla and Eyre Peninsula/Eyre Peninsula Local Government Association, *Submission 83*, p. 5.

1.22 Similarly, the District Council of Ceduna noted the developments at Ceduna Airport for the operation of BP's aviation logistics base for the proposed exploratory drilling program. The Council stated that the revenue generated by the lease will provide revenue to the Council for community services and works which would otherwise be borne by Ceduna Council residents. The Council concluded that:

BP's positive social and economic contribution to the communities of Eyre Peninsula and the Ceduna Region to date has been significant as a direct result of their presence in the region for the GAB exploratory drilling program.<sup>23</sup>

1.23 BP noted that the \$8 million upgrade to Port Adelaide's bunkering facility provided more than 20 local jobs including in construction works and pipeline design, and has provided a 'welcome boost for local suppliers and business confidence'.<sup>24</sup>

1.24 In noting BP's decision to not proceed with exploration in the Great Australian Bight, the Department of Industry, Innovation and Science submitted that:

The BP program in the Great Australian Bight would have created jobs and opportunities for local suppliers. It was expected that 25 businesses in Ceduna and surrounding towns would be engaged in BP's planned drilling program; 100 workers including 25 Ceduna-based workers and 20 per cent indigenous worker component.<sup>25</sup>

### ***Revenue and royalties***

1.25 The committee received evidence in relation to the taxation arrangements that apply to the extraction of petroleum resources in Australia. These arrangements 'are aimed at encouraging production from Australia's oil and gas reserves while providing an adequate return to the Australian community on the exploitation of their resources'.<sup>26</sup>

1.26 Table 1.1 provides an outline of the various petroleum taxation arrangements that are in effect.

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23 District Council of Ceduna, *Submission 5*, p. 4.

24 Infrastructure Magazine, 'Fueling South Australia's port infrastructure', 3 November 2016, <http://infrastructuremagazine.com.au/2016/11/03/fueling-south-australias-port-infrastructure/>, (accessed 20 February 2017).

25 Department of Industry, Innovation and Science, *Submission 72*, p. 5.

26 Department of Industry, Innovation and Science, 'Resources taxation', <https://industry.gov.au/resource/Enhancing/ResourcesTaxation/Pages/default.aspx> (accessed 1 May 2017).

**Table 1.1 – Summary of Australia's petroleum taxation arrangements**

Tax	Description
Petroleum resource rent tax (PRRT)	<p>The Petroleum Resource Rent Tax (PRRT) was originally introduced by the Australian Government in 1987 to replace royalties and crude oil excise in most areas of Commonwealth waters. From 1 July 2012, PRRT applies to all Australian onshore and offshore oil and gas projects, including the North West Shelf and coal seam gas projects.</p> <p>The PRRT is a profit based tax levied at 40 percent of net revenues (sales receipts less eligible expenditures) from a project.</p>
Offshore petroleum royalties	<p>Offshore petroleum royalties currently apply to the North West Shelf (NWS) production area and state and territory waters. Royalties do not overlap with the Resource Rent Royalty regime (see below).</p> <p>Onshore, royalties are levied on petroleum production and are collected by the states and territories. The rate is generally set at approximately 10 per cent of net wellhead value of production.</p>
Crude Oil Excise	<p>The Australian Government applies Crude Oil Excise to eligible crude oil and condensate production from coastal waters, onshore areas, and the North West Shelf project area in Australian waters.</p> <p>The rate of excise applied depends on the annual rate of production of crude oil and condensate, the date of discovery of the petroleum reservoir and the date on which production commenced.</p> <p>The first 30 million barrels are excise exempt, and variable excise rates apply to annual production at different levels.</p>
Production Sharing Contracts	<p>Petroleum produced within the Joint Petroleum Development Area (JPDA) is subject to fiscal terms outlined in a Production Sharing Contract (PSC). PSCs are agreements between the parties to a petroleum extraction facility and the Australian and East Timorese governments regarding the percentage of production each party will receive after the participating parties have recovered a specified amount of costs and expenses.</p>
Resources Rent Royalty (RRR)	<p>The Australian Government excise is waived where a state introduces a Resource Rent Royalty (RRR) on a petroleum development within its jurisdiction and where a revenue sharing agreement is negotiated with the Australian Government.</p> <p>The profits based RRR regime is similar to the PRRT.</p>

Source: Department of Industry, Innovation and Science, 'Resources taxation', <https://industry.gov.au/resource/Enhancing/ResourcesTaxation/Pages/default.aspx>.

1.27 The PRRT attracted some comment during the inquiry. The PRRT is a profit-based tax applied to the recovery of petroleum products that is:

...designed to capture the 'economic rent' associated with the development of petroleum projects. A finite supply of high quality, accessible petroleum deposits means that there are pockets of petroleum resource projects offering the prospect of very high returns, well in excess of the returns

necessary to attract commercial investment. Those high excess returns represent pockets of economic rent.<sup>27</sup>

1.28 Mr Mike Lawson, Acting Deputy Secretary, Department of Industry, Innovation and Science, explained the difference between ordinary company tax and taxes such as the PRRT succinctly as follows: 'The companies pay company tax on their profits. Resource rent tax is a tax on the resource rents'.<sup>28</sup>

1.29 The following is a brief summary of how the PRRT operates:

The PRRT is assessed on a petroleum project basis and is levied at a rate of 40 per cent of a project's taxable profit. Taxable profit is calculated by deducting a project's eligible project expenses from the assessable receipts derived from the project. Deductible expenditure broadly includes those expenditures, whether capital or revenue in nature, which are directly incurred in relation to the petroleum project.<sup>29</sup>

1.30 Some submitters raised concern that existing taxation arrangements for offshore oil and gas projects may reduce the economic benefits.<sup>30</sup> The risk associated with offshore petroleum exploration and the implications of this for taxation revenue was also raised.

1.31 It is a fundamental principle of the Australian taxation system that expenses and losses incurred in gaining tax assessable income can generally be deducted from assessable income.<sup>31</sup> The design of the PRRT also takes into account the risks involved in petroleum exploration and development.<sup>32</sup> The advantages and risks involved in the development of oil and gas projects in Australia were examined recently as part of a review of the PRRT commissioned by the Government. Although Australia is considered to have 'a number of country specific advantages' that help influence whether oil and gas exploration and development is undertaken in Australia, the review considered that 'a number of major challenges confront the development of oil and gas projects in Australia':

In particular, the development of Australia's gas resources, especially offshore, is challenged by its remoteness, a lack of available infrastructure,

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27 Petroleum Resource Rent Tax Review, *Issues note*, 20 December 2016, [www.treasury.gov.au/~media/Treasury/Consultations%20and%20Reviews/Reviews%20and%20Inquiries/2016/Review%20of%20Petroleum%20Resource%20Rent%20Tax/Key%20Documents/PDF/PRRT\\_dn.ashx](http://www.treasury.gov.au/~media/Treasury/Consultations%20and%20Reviews/Reviews%20and%20Inquiries/2016/Review%20of%20Petroleum%20Resource%20Rent%20Tax/Key%20Documents/PDF/PRRT_dn.ashx), (accessed 1 May 2017), p. 2.

28 Mr Mike Lawson, Acting Deputy Secretary, Department of Industry, Innovation and Science, *Committee Hansard*, 8 February 2017, p. 9.

29 Petroleum Resource Rent Tax Review, *Issues note*, 20 December 2016, p. 2.

30 See for example, Miss Rebecca Faulkner, *Submission 38*, p. 9.

31 For an example of a statement articulating this principle, See Treasury, *Submission 19* to House of Representatives Standing Committee on Economics inquiry into tax deductibility, January 2016, p. 2.

32 Australian Taxation Office, *Review of the Petroleum Resource Rent Tax: ATO Submission*, p. 4.

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geological uncertainties and the significant capital costs and long lead times required to facilitate resource recovery.<sup>33</sup>

1.32 The Department of Industry, Innovation and Science told the committee that the PRRT is 'designed to be—in a sense—a risk-sharing engagement' which encourages investment.<sup>34</sup> In particular, departmental officers agreed that the design of the tax is not intended to inhibit exploration. Mr Lawson stated:

Absolutely, the whole point of it is what is a normal return on the assets that have been invested in and spent doing exploration and assets that are then spent on building the capacity of the production facilities and so on. Those things are deducted according to tax law and profits. Resource rent taxes can come out the other end and are subject to those taxes.<sup>35</sup>

### ***Environmental impacts – seismic surveying***

1.33 The committee received evidence in relation to the regulatory requirements which govern the undertaking of seismic surveys during the exploration phase of offshore oil and gas operations.

1.34 APPEA submitted that both industry mitigation practices and the requirements of the EPBC Act Policy Statement *Interactions between offshore seismic exploration and whales* ensure that seismic surveying occurs under strict conditions designed to protect marine life. APPEA described the mitigation measures required under the Policy Statement as 'some of the most restrictive mitigation measures in the world' including a 'timing guide, soft-starts, observations zones, low power zones and shutdown zones'.<sup>36</sup>

1.35 Mr Derrick O'Keefe, Murphy Australia Oil, also pointed to an added, unplanned, benefit of seismic surveying: environmental data, such as meteor data, wave action, observation of different species in the Bight and salinity measurements, has been obtained. The data has been provided to different scientific groups to assist them with their research.<sup>37</sup>

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33 PRRT review, pp. 28–29.

34 Mr Mike Lawson, Department of Industry, Innovation and Science, *Committee Hansard*, 8 February 2017, p. 9.

35 Mr Mike Lawson, Department of Industry, Innovation and Science, *Committee Hansard*, 8 February 2017, p. 9.

36 APPEA, *Submission 46*, p. 14.

37 Mr Derrick O'Keefe, Murphy Australia Oil, *Committee Hansard*, 28 April 2017, p. 64.

## **Additional evidence Chapter 5 – Environmental and economic impacts in the event of an oil spill**

### *Natural oil seepage*

1.36 APPEA presented evidence that the Great Australian Bight has a history of natural oil and gas seeping from the seabed, accounting for more than half of the oil introduced into the marine environment. Oil and gas below the seabed can either seep from the sea floor or rise through the water column in a plume—both of which result in oil slicks on the sea surface.<sup>38</sup>

1.37 APPEA noted that small balls of natural tar washing up on beaches along South Australia's Bowney Coast 'provided the first tangible sign of potential oil and gas reserves in the canyon systems of the continental slope'. It also stated that:

The former South Australian Department of Mines & Energy has previously reported a stranding of an estimated 1000 tonnes of crude oil near Seal Bay on the south coast of Kangaroo Island on 7 December 1986. Australian Mineral Development Laboratories analysed samples and concluded the substance was naturally occurring oil.<sup>39</sup>

1.38 APPEA submitted that Geoscience Australia studies 'indicate that some natural slicks are up to 1,200 metres long and between 30 and 150 metres wide and occur in water depths from 5000 to less than 200 metres'.<sup>40</sup>

1.39 APPEA also submitted that the US National Research Council estimates that oil introduced into the environment from platform based oil spills only accounts for 0.07 per cent of all spills.<sup>41</sup>

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38 APPEA, *Submission 46*, p. 22.

39 APPEA, *Submission 46*, p. 22.

40 APPEA, *Submission 46*, p. 22.

41 APPEA, *Submission 46*, p. 22.

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## **Additional evidence Chapter 6 – Capacity to prevent, and mitigate the effect of an oil spill**

### ***Regulatory requirements***

1.40 APPEA told the committee that the regulatory regime implemented by NOPSEMA 'recognises the importance by both preventing but also preparing to respond to the very low likelihood but credible, high consequence events'.<sup>42</sup>

### ***Titleholder strategies and response organisations***

1.41 APPEA submitted that in 'the rare event' that an oil spill occurs, operators are required to have in place the capability to respond and minimise the impact.<sup>43</sup>

### ***Mutual Assistance Agreement***

1.42 BP noted that in 2012, 12 APPEA member companies, including BP signed a memorandum of understanding on mutual assistance (known as the Mutual Assistance Agreement). This agreement is intended to facilitate the transfer of a mobile offshore drilling unit (MODU) between operators in the event that one is required to drill an emergency relief well. However it stated that it is unlikely that any other MODU would be present in the Great Australian Bight at the time of its proposed project.<sup>44</sup>

### ***Concerns with the ability of proponents to prevent an oil spill***

1.43 Oil and gas exploration companies responded to concerns raised by submitters in relation to the ability of proponents to prevent and oil spill, and noted that they had been undertaking activities successfully for many years. Santos Ltd, for example, commented:

Santos has been undertaking offshore petroleum activities for more than 30 years and, in that time, has developed an expertise in, and track-record of, safe and effective operation. The company's internal processes ensure that proposed activities in even the most challenging of offshore settings are well planned and carefully managed and, in the context of the Commonwealth waters of Australia, accepted by NOPSEMA as demonstrating that impacts and risks are reduced to ALARP.<sup>45</sup>

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42 APPEA, *Submission 46*, p. 37.

43 APPEA, *Submission 46*, p. 4.

44 BP Developments Australia Pty Ltd, *Submission 20*, Attachment 5, p. 10.

45 Santos Ltd, *Submission 16*, p. 9.

1.44 Murphy Australia Oil also commented that 'it should be remembered that safety systems in relation to spills and accidents are not limited to world-class methods, post-incident, but also include world-class systems designed to prevent an incident'.<sup>46</sup>

1.45 In relation to concerns about the weather and depth of drilling in the Great Australian Bight, Chevron Australia commented that there are a number of other areas in the world with comparable weather and depth conditions which have been successfully drilled. Dr David Moffat, General Manager, Exploration, stated:

The examples we would offer would be west of Shetland, which is a harsh environment; Newfoundland; West Africa; and Western Australia, as a key example. The analogy I was giving there was not with Bass Strait but with other areas that we have operated that are of similar character to the bight. In terms of the water depth, we have drilled over 175 wells with greater than a kilometre depth, a thousand metres of water depth. I think our record in those deepwater wells is admirable. The record, in terms of depth of drilling, is that we have drilled down to depths of 2,900 metres plus. Those are comparable to the bight.<sup>47</sup>

1.46 Similarly, Santos Ltd noted that it has drilled along the southern continental slope in the Bass Strait to total drilled depths in excess of 3600m. It described the weather conditions in the area as 'challenging' and stated that they are 'consistent with those experienced through the whole of the Southern Ocean region from the Bass Strait to the Great Australian Bight'. It submitted that 'robust and comprehensive technical rig selection process, mooring analysis and engineered well design ensure that these conditions do not impact the integrity or safety of the drilling operations'.<sup>48</sup>

1.47 Dr Malcolm Roberts, APPEA, added that the industry has longstanding arrangements in place to ensure that, in the event of a major incident, equipment and qualified people are ready to be mobilised quickly. In addition to the equipment available in Australia to response to a spill, arrangements are in place with international agencies to ensure the delivery of specialist equipment not available in Australia. Dr Roberts also noted that NOPSEMA is responsible for assessing environmental risk and ensuring that companies have a response plan. He stated:

There is no doubt that these are significant issues, but equally there is no doubt that these are some of the major issues that will be assessed by the regulator as part of this proposal. If the regulator is not satisfied that those environmental risks have been identified and reduced as much as reasonably practicable, and that there is an effective response plan in place

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46 Murphy Australia Oil, *Submission 21*, p. 4.

47 Dr David Moffat, Chevron Australia, *Committee Hansard*, 16 November 2016, p. 43.

48 Santos Ltd, *Submission 16*, pp. 8–9.

that could be implemented quickly and effectively, then approval will not be given.<sup>49</sup>

1.48 APPEA stated that the most common drilling rig in Australian waters are semi-submersible Mobile Offshore Drilling Units (MODU) which are semi-submerged to increase stability and are stabilised by anchors or azimuth thrusters. BP commissioned the construction of a specialist MODU, the Ocean GreatWhite equipped with dynamic thrusters to enable it to remain stable during extreme weather. APPEA stated that the Ocean GreatWhite is capable of operating at water depths of more than 3,000 metres and drilling to depths of more than 10,000 metres.<sup>50</sup>

### *Lessons learned from Deepwater Horizon*

1.49 BP provided the committee with evidence of its response to the Deepwater Horizon accident. It noted that an internal investigation into the event had made eight findings and 26 recommendations specific to drilling which BP as implemented across its worldwide drilling activities. In addition, the 'eight key findings of the Accident Investigation Report have all been directly addressed in preventative planning for operations in the Great Australian Bight'.<sup>51</sup> These were provided in detail in BP's submission.<sup>52</sup>

1.50 BP went on to comment that the industry has continued to advance capabilities and adopt changes in a number of areas as a result of the lessons learned from Deepwater Horizon and other incidents. These areas include:

- prevention and drilling safety—the aim is to prevent well control incidents from occurring in the first instance;
- enhancing standards in relation to equipment and procedures is continuing; and
- planning and preparing to contain a situation—implementation of a tiered approach to tactical responses to subsea well incidents.<sup>53</sup>

1.51 It also provided a report on environmental recovery and restoration in the Gulf of Mexico. This report detailed the response efforts and noted that:

- under the Natural Resource Damage Assessment (NRDA) process,<sup>54</sup> scientists have conducted more than 240 studies and BP has provided funding of \$US1.3 billion for these studies;

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49 Dr Malcolm Roberts, APPEA, *Committee Hansard*, 28 April 2016, p. 4.

50 APPEA, *Submission 46*, p. 16.

51 BP Developments Australia Pty Ltd, *Submission 20*, pp. 1–2, 13.

52 BP Developments Australia Pty Ltd, *Submission 20*, pp. 17–21.

53 BP Developments Australia Pty Ltd, *Submission 20*, pp. 13–15.

54 The US Oil Pollution Act of 1990 established the NRDA process.

- in 2011, BP entered into an agreement to provide \$US1 billion for early restoration projects, allowing environmental restoration work to begin while scientists continued to assess injury through the NRDA.<sup>55</sup>

1.52 BP also noted that the recovery effort following the Deepwater Horizon accident was generally well received by the community. Ms Fitzpatrick stated that the community 'has been pleased with the fact that we stepped up and actually did do all of the activity and work that we did, and that we looked after people who had been impacted financially'.<sup>56</sup> Ms Fitzpatrick went on to comment that BP was in a position to meet its financial obligations should a spill event occur in the Great Australian Bight.<sup>57</sup>

### **Senators' views**

1.53 Balancing the need for the protection of pristine marine environments against the development of, and investment in, the offshore oil and gas industry has been the subject of fierce public debate for many years.

1.54 Though this inquiry followed the proposal by BP to conduct exploratory drilling in the Great Australian Bight, the concerns and issues raised more broadly addressed the current regulatory regime governing the approval of offshore oil and gas activities in Australia. It was also evident that concerns regarding the potential impact on the pristine marine environment of the Great Australian Bight would apply to all oil and gas activities in the area, regardless of the proponent company.

1.55 We acknowledge that the environmental, economic and social impacts resulting from the 2011 Deepwater Horizon incident in the Gulf of Mexico influenced the view held by many submitters regarding the appropriateness of offshore oil and gas activities being conducted in the Great Australian Bight. The Deepwater Horizon incident also weighed heavily on some submitters' perception of BP as a titleholder in the Great Australian Bight.

1.56 It should be noted however that the Australian offshore oil and gas regulatory regime differs significantly from that of the United States. BP has acknowledged that since the Deepwater Horizon incident, it has changed a number of its business practices to ensure the safety of its operations. We also note the extensive rehabilitation work coordinated and funded by BP which has significantly limited the impact of this incident on affected coastal communities along the Gulf.

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55 BP Developments Australia Pty Ltd, *Submission 20*, Attachment 2.

56 Ms Claire Fitzpatrick, Managing Director, BP Developments Australia Pty Ltd, *Committee Hansard*, 28 April 2016, p. 47.

57 Ms Claire Fitzpatrick, Managing Director, BP Developments Australia Pty Ltd, *Committee Hansard*, 28 April 2016, p. 48.

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## Protection of the Great Australian Bight

1.57 The Great Australian Bight is an extraordinary oceanic and coastal environment of global conservation significance. It is a place of unparalleled natural beauty and is home to an array of diverse and unique flora and fauna species. Coastal communities have a deep and abiding connection to the Great Australian Bight and rely on it for both industry and recreation. The Great Australian Bight also provides national and international visitors with an opportunity to experience one of the world's pristine and unique marine wilderness areas.

1.58 As one of the last remaining intact ocean wilderness areas in the world, it provides critical habitat to a range of threatened and endangered wildlife species. It is extraordinarily rich in biodiversity, and is home to an enormous number of endemic species—some 85 percent of species found in the region are endemic. Many of these endemic species are also listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

1.59 The waters of the Bight provide the most significant breeding and calving areas in Australia for the southern right whale, one of two such major calving areas in the world. It also supports an essential nursery area for the endangered Australian sea lion. The Bight provides seasonal habitat for a range of rare and endangered cetaceans such as sperm whales, killer whales and orcas (blue, minke and humpback whales).

1.60 Over the past 20 years, both the Commonwealth and the South Australian governments have worked to recognise the global conservation values of the region through the declaration of extensive protection areas. One mechanism to preserve and protect the Great Australian Bight has been the establishment of Commonwealth marine reserves. The establishment of marine reserves acts to protect and maintain an area's biodiversity, including endangered and threatened species such as whales and pinnipeds, and their habitats.

1.61 In 2014, the Australian government commissioned an independent review of the CMR network established in 2012. The review was undertaken by an expert scientific panel, which reviewed the science underpinning the current CMRs, and five bioregional advisory panels, which facilitated enhanced consultation with stakeholders.

1.62 The panels recommended zoning changes in the Great Australian Bight to exclude oil and gas activities from existing inshore special purpose zones. However, these zones do not overlap current petroleum titles, nor are titleholders or other companies prohibited from traversing the re-zoned areas.

1.63 We believe that the mechanisms currently in place acknowledge the high environmental values of the Great Australian Bight, and provide appropriate levels of protection to the area.

## **Economic benefits and energy security**

1.64 The energy sector is fundamental to Australia's social and economic prosperity. It underpins every aspect of economic activity, and the strategic management and security of energy resources is critical to the future of the nation. In addition, oil and gas exploration and production continues to be a significant contributor to the Australian economy through domestic supply, export revenue, skills development, employment opportunities and regional development.

1.65 In 2014–15, it was estimated that the oil and gas industry contributed \$31 billion to industry gross value added, and employed around 24,000 people. In addition there have been some 40,000 fulltime jobs on LNG construction projects in Western Australia and Queensland in the last decade. Oil and gas exploration and production results in investment in regional infrastructure, and expenditure through the development of facilities, industry contracts, accommodation, and associated service contracts. The oil and gas industry is also one of the highest value-add industries in Australia generating highly skilled jobs both directly, and through downstream processing, engineering, and other services.

1.66 As noted during the course of the inquiry, BP's proposed exploration activity in the Great Australian Bight would have resulted in significant economic benefit to both South Australia and the Great Australian Bight region. It was expected to generate opportunities for the development of business capabilities and diversification in the Eyre Peninsular and Whyalla region. This would have occurred through direct and indirect service provisions and the development of infrastructure to support offshore activities.

1.67 Benefits during the exploration phase have already arisen with the Regional Development Whyalla and Eyre Peninsula/Eyre Peninsula Local Government Association pointing to the upgrade of facilities at Ceduna airport. The South Australian Government also provided the committee with evidence of opportunities for South Australian businesses, for example, the opening of the Port Adelaide Marine Supply Base which serviced and provided supplies to BP.

1.68 We note evidence that the Eyre Peninsula has suffered from a lack of investment in ageing infrastructure, poor employment opportunities, low retention rates of younger workers and limited business opportunities. It is therefore unsurprising that the Regional Development Whyalla and Eyre Peninsula/Eyre Peninsula Local Government saw the economic benefits for the region arising from oil and gas production as being 'transformational'.

1.69 Evidence received by the committee pointed to the much needed regional employment and investment which would have arisen from BP's operations. It was expected that 25 businesses in Ceduna and surrounding towns would have been engaged during BP's planned drilling program. It was also expected that 100 workers, would have been engaged including 25 Ceduna-based workers, and a 20 per cent Indigenous worker component.

1.70 We consider that the economic benefits from exploration and production of oil and gas in the Great Australian Bight are clear. While only in the exploration phase, significant investment has already taken place in South Australia. The experience with offshore oil and gas developments in Western Australia point to the potential for significant job creation, investment in infrastructure, and business opportunities in regions where there are no alternative opportunities. We therefore strongly support the oil and gas industry in Australia.

1.71 The oil and gas industry is also critical to ensuring Australia's energy security. Australia's fuel supply has been protected from disruption by current market conditions. However it remains vulnerable to high-impact geopolitical events in areas of production such as the Middle East, or along supply chains such as the Straits of Hormuz and, more recently, the South China Sea. As such, it is important that new opportunities for production must be identified to ensure that Australia can maintain diverse and resilient energy supplies. Continued growth in domestic oil demand and declining oil production have already resulted in a significant decline in Australia's self-sufficiency in crude oil and refined petroleum products. Australia's growing trade deficit in crude oil and refined products has both security and cost implications.

1.72 We consider the protection of Australia's energy security to be of the utmost importance. Domestic oil and gas exploration and production are pivotal to ensuring that Australia's economic and social wellbeing is protected from the effect of any disruption to Australia's fuel supply. The International Energy Agency predicted that Australia had only 48 days of fuel reserves onshore in January 2017!

1.73 Chevron Australia has indicated it proposes to drill for oil in its exploration lease in the Great Australian Bight. Chevron and its partners have invested US \$100 billion (A\$130 billion) on its Liquid Natural Gas (LNG) projects at Gorgon on Barrow Island and Wheatstone based at Onslow on the North West Shelf of Western Australia.

1.74 From its two LNG trains at Gorgon, Chevron has already invested A\$60 billion into the local economy during the construction phase of these projects. Acil Allen consultants have predicted that, over the 30 year life of these two projects, they will deliver more than \$1trillion to Australia's GDP, around 150,000 full time job equivalents and \$340 billion to Federal Government revenue.

### **Strength of regulatory regime**

1.75 The Australian offshore oil and gas industry is subject to one of the most rigorous environmental and safety regulatory regimes in the world. The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA), was established in 2011 as the independent authority responsible for the regulation of well integrity, health and safety, and environmental management for offshore oil and gas operations in Commonwealth waters. It is a highly competent, robust, and independent regulator, and utilises an objectives-based regulatory model which has been recognised as best practice in high risk industries.

1.76 Previously, the Department of the Environment was responsible for the environmental approvals of offshore oil and gas activities which would have an impact on Matters of National Environment Significance (MNES) under the EPBC Act. In 2014, NOPSEMA's environmental approvals process was endorsed by the Commonwealth Minister for the Environment as being appropriate to ensure that oil and gas activities do not have unacceptable impacts on matters protected under the EPBC Act.

1.77 We note some submitters questioned whether NOPSEMA has sufficient expertise to make environmental assessments. It accepts NOPSEMA's evidence that it employs appropriately qualified staff. We also note the evidence that staff are required to demonstrate and maintain relevant competencies prior to undertaking lead regulatory roles. We also note the high level of cooperation which exists between NOPSEMA and other government departments.

1.78 NOPSEMA relies on both scientific evidence and a team of highly qualified staff to undertake all environmental and safety assessments. NOPSEMA utilises national and international information sources including peer-reviewed scientific literature, industry publications, and government reports.

1.79 We are of the view that the approvals process administered by NOPSEMA has substantial strengths over other regulatory regimes. In particular, NOPSEMA requires proponents to be proactive in identifying, consulting and addressing issues raised by relevant persons. Proponents are also required to demonstrate to NOPSEMA that concerns raised by relevant persons have been dealt with appropriately. If NOPSEMA is not satisfied that all consultation requirements have been met, then the environment plan will not be accepted, and the activity cannot proceed.

1.80 We agree with Mr Stuart Smith, Chief Executive of NOPSEMA that this is superior to other environmental processes, such as those administered by the Department of the Environment and Energy under the EPBC Act, as it places the onus on the proponent to actively consult, and provide evidence of this consultation to NOPSEMA.

1.81 Further, contrary to claims made by environmental advocacy groups, there is no evidence that NOPSEMA has failed to implement the principles of ecologically sustainable development as defined under the EPBC Act, such as the precautionary principle. Nor is there evidence that NOPSEMA, in considering Environment Plans has failed, or will fail to explicitly take into consideration any potential impacts on matters protected under Part 3 of the EPBC Act. In fact, evidence demonstrates that NOPSEMA is actually required to consider the impacts on the environment from offshore oil and gas beyond the matters stipulated by the EPBC Act.

1.82 NOPSEMA's environmental approvals process has been endorsed by the Minister for the Environment as being appropriate to ensure that offshore oil and gas activities do not have unacceptable impacts on matters protected under the EPBC Act. It was also reviewed after 12 months of operation and found to be delivering, and is

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expected to continue delivering the levels of environmental protection required under the EPBC Act. We accept the evidence that NOPSEMA's approvals process reduces costly and unnecessary duplication and allows for the timely consideration and approval of oil and gas projects. This ensures that investment in oil and projects is encouraged and facilitated, whilst simultaneously ensuring that the environment is appropriately protected.

1.83 We note NOPSEMA's efforts to develop mechanisms to increase public confidence in the offshore regulatory regime through enhanced transparency for stakeholder input. For example, the requirement for proponents to publicly disclose environment plans before the NOPSEMA assessment process commences, and the introduction of a formal public comment period. As stated by Mr Smith, Chief Executive of NOPSEMA, these enhancements would not alter final approvals by NOPSEMA, as the current existing regulatory framework already ensures that the regulator is provided with all required information about stakeholder consultation. These enhancements are simply directed at improving community confidence that their issues have been taken into account, rather than altering approval outcomes.

1.84 We are reassured that the existing approvals process ensures that NOPSEMA is a well-informed, robust and independent regulator. We commend NOPSEMA for considering ways to improve community confidence in its approvals process and notes the work being undertaken by the Department of Industry, Innovation and Science as part of the review of environmental transparency under NOPSEMA's regulatory regime.

1.85 We have confidence that NOPSEMA provides, and will continue to provide, appropriate levels of environmental protection through its rigorous approvals process.

### **Long track record of safe exploration and production**

1.86 We note the findings of oil spill modelling provided by both The Wilderness Society and BP, and note concerns that the effects of an oil spill in the Great Australian Bight could be catastrophic. Submitters provided evidence that marine flora and fauna, including threatened and protected species would be killed and injured, and that delicate ecosystems would be disrupted. Further, submitters expressed concern that industries such as fisheries and aquaculture, and tourism would be affected by an oil spill.

1.87 Some submitters also raised concern that in the event of an oil spill in the Great Australian Bight, the harsh weather conditions and the remote and isolated coastline could create difficulties in undertaking containment and clean-up activities. However, evidence was received that NOPSEMA requires oil and gas proponents to demonstrate that appropriate response strategies are in place in order to obtain approval to undertake activity in the region. We believe that NOPSEMA is best-placed, as a robust and independent regulator, to make an assessment of the appropriateness of oil spill mitigation measures.

1.88 Oil and gas industry proponents argued that operations in the Great Australian Bight would be conducted with the risk reduced to as low as reasonably practicable as required under the regulatory framework. In Australia, the oil and gas industry has a long history of ensuring that operations are conducted safely, and in a manner which does not endanger pristine environments. Over many decades, operations in the Bass Strait and the North West Shelf area have proven to co-exist with other industries such as fishing and aquaculture, and delicate marine and coastal ecosystems have not been negatively affected.

1.89 We particularly note the efforts of Chevron Australia which has operated on Barrow Island, Western Australia since 1967. Barrow Island is a Class A Nature Reserve, and Chevron Australia has implemented best practice environmental management strategies which have ensured that the island's ecology remains essentially intact. Chevron Australia's management of Barrow Island demonstrates that oil and gas exploration and production can safely co-exist with delicate and protected ecosystems, and that titleholders have a strongly demonstrated commitment to ensuring that their operations are conducted in a manner in which environmental protection standards are paramount in all aspects of their operations.

1.90 In relation to the Deepwater Horizon spill, the committee notes that this event was used by some submitters as a reason for a complete ban on oil or gas activities in the Great Australian Bight. However, BP provided evidence to the committee that the lessons learnt from the accident and the recommendations of the BP internal investigation have been implemented across BP's worldwide drilling activities, including in the Great Australian Bight.

1.91 In addition, we note the evidence from NOPSEMA that the regulatory arrangements for well integrity in Australia are 'amongst the best in the world', and are based on experience worldwide and the lessons learned from other incidents. As a consequence, NOPSEMA concluded that it is well-placed to identify and prevent an incident similar to Deepwater Horizon and to respond if such an event should occur.<sup>58</sup>

1.92 The oil and gas industry also has a longstanding and cooperative relationship with the scientific research community. The committee notes that BP Australia provides funding to the Great Australian Bight Research Program, a four year \$20 million project led by the CSIRO which involves seven major study themes including benthic biodiversity and socioeconomic issues. This project is a collaborative effort between BP, CSIRO, the Government of South Australia, the South Australian Research and Development Institute, the University of Adelaide, and Flinders University. This project will provide invaluable baseline data sets which will ensure that the Great Australian Bight is managed appropriately. Chevron Australia also separately funds a research program in the Great Australian Bight which will complement the aims of the Great Australian Bight Research Program.

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58 Mr Stuart Smith, Chief Executive Officer, NOPSEMA, *Committee Hansard*, 28 April 2016, p. 59.

1.93 We commend the commitment of the oil and gas industry to ensuring that oil and gas operations are supported by the latest in scientific research. We also commend the industry on its valuable contribution to the support of the scientific and academic research community in Australia.

1.94 We have confidence that the oil and gas industry in Australia will continue to comply with all regulatory requirements, and implement appropriate safety and environmental protections measures. We particularly recognise the oil and gas industry demonstrated commitment to best practice safety and environmental practices over many years.

1.95 As such, we support the continued development of Australia's oil and gas sector in accordance with the regulatory regime's robust environmental and safety requirements.

### **Oil spill mitigation**

1.96 Some submitters expressed concerns relating to the capacity of companies, and the industry more generally, to mitigate the risk of an oil spill during exploration or production from an offshore facility.

1.97 We note advice from the Australian Petroleum Production and Exploration Association (APPEA) that Australia has longstanding arrangements for co-ordinated action by industry and governments in the event of a marine oil spill. The Chief Executive, Mr Malcolm Roberts informed the committee that the National Plan for Maritime Environmental Emergencies provides a co-operative framework for response by governments, the shipping and petroleum industries.

1.98 Mr Roberts advised that the industry contribution is led by the Australian Marine Oil Spill Centre (AMOSOC), established in 1991 as a subsidiary of the Australian Institute of Petroleum (AIP). AMOSOC's members account for virtually all oil and gas exploration and production, offshore pipelines and tanker shipping in Australian waters. Through AMOSOC, the local industry operates in line with international best practice for spill prevention, preparedness and response.

1.99 APPEA advised that AMOSOC operates from two main centres (Geelong and Fremantle) with additional equipment stockpiles at Exmouth and Broome. AMOSOC has a permanent staff of twelve people with support readily available from another 120 trained industry personnel (known as the Core Group). Over the last three years, AMOSOC has trained 355 industry professionals to expand the pool of trained response staff across the industry. AMOSOC training is endorsed by the International Maritime Organisation. AMOSOC has invested almost \$30 million in on-call specialised surface and sub-surface equipment and dispersants, located in the main risk areas off Australia.

1.100 We were informed of the existence of the Subsea First Response Toolkit which can be deployed at short notice with equipment to respond to a failure in well

integrity, including injecting subsea dispersants, operating blow out preventers and, if necessary, preparing the wellhead for deployment of a capping stack.

1.101 We also note the evidence from BP and other companies that there is continuous improvement in equipment, procedures and training and competency management in the areas of drilling safety and prevention, containment and oil spill response. We consider that the industry has shown its willingness to learn from past accidents and is well placed to respond to any accident in the Great Australian Bight in the unlikely event that this should occur.

## **Conclusion**

1.102 We support oil and gas exploration in the Great Australian Bight subject to continued strong oversight by NOPSEMA.

**Senator Linda Reynolds CSC**  
**Deputy Chair**  
**Senator for Western Australia**

**Senator Chris Back**  
**Senator for Western Australia**

**Senator Alex Gallacher**  
**Senator for South Australia**