Chapter 1

Background to the bill and conduct of the inquiry

1.1 On 18 June 2008, the Minister for Resources and Energy, the Hon Martin Ferguson MP, introduced the Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill 2008 into the House of Representatives. As part of the consultation process associated with the introduction of the bill, the Minister asked the House of Representatives Standing Committee on Primary Industries and Resources to conduct an inquiry into the provisions of the draft bill. The Committee reported on 15 August 2008.[1]

1.2 On 25 June 2008, the Senate referred the provisions of the Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill 2008 and three related bills to the Standing Committee on Economics for report and inquiry. The committee was asked to report by 16 October 2008.

1.3 In requesting the bills be referred to the Economics Committee, the Selection of Bills Committee was particularly concerned that the bill shifts liability for leakage of CO_2 from geological storage from the large greenhouse gas emitters to the public:

> The long-term cost of unforseen leakage of carbon dioxide from geological storage could be very substantial. This legislation shifts the liability for such leakage from the large greenhouse gas emitters who may use geological storage, to the public. Given the uncertainty about the permanence of geological storage the Senate needs to carefully consider these liability risks.[2]

1.4 On 25 June 2008, the Standing Committee for the Scrutiny of Bills Committee also raised concerns in respect of the bill. These concerns related to the failure of the explanatory memorandum to explain adequately the intent and operation of numerous provisions in the bill. Of particular concern were the commencement clauses and the provisions that create offences of strict liability.[3]

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1 In the report, *Down Under: Greenhouse Gas Storage*, the committee sought to strike a balance between the existing rights of petroleum title holders and those of organisations holding the new greenhouse gas storage titles. The House Committee agreed with the Government that 'the similarities and synergies in the petroleum and GHG storage industries make common legislation appropriate' but advocated that financial incentives be considered to encourage early investors into offshore storage of CO_2 (p. 11). It noted that petroleum companies may be best placed to operate such storage operations.

2 Selection of Bills Committee, *Report No. 6 of 2008*, 25 June 2008, Appendix 1.

3 Standing Committee for the Scrutiny of Bills, *Alert Digest 6/08*. Strict liability is a legal doctrine that makes a person responsible for the damage and loss caused by his/her acts and omissions regardless of culpability (or fault in criminal law terms).

1.5 As the House of Representatives Standing Committee on Primary Industries and Resources' report has already canvassed extensively a range of issues, this report concentrates on a closer examination of these key issues. The first chapter provides an outline of the purposes of the bill and discusses the regulatory framework for greenhouse gas injection and storage in Commonwealth offshore waters. Chapter 2 provides some background information on the science and economics of offshore CO_2 storage. Chapter 3 investigates the provisions contained within the bill for regulating the offshore CO_2 storage market and Chapter 4 examines the question of liability. The final chapter of the report provides conclusions and recommendations.

Purpose of the bill

1.6 The bill provides for access and property rights for greenhouse gas injection and storage activities in Commonwealth offshore waters. It applies to titles which will be located in the area between the outer limits of the states' coastal waters (i.e. 3 nautical miles from the shore) and the outer limit of the continental shelf.[4] The bill amends the *Offshore Petroleum Act 2006* to establish a system of offshore titles that will authorise the transportation, injection and storage of greenhouse gas (GHG) substances, principally carbon dioxide (CO_2), in deep geological formations under the seabed.[5] To achieve this aim, the bill changes the existing regime of petroleum titles in order to accommodate the new kinds of activity being authorised by the Act. Accordingly, the legislation seeks to balance the rights of new participants in the industry with those of the petroleum industry. The legislation also seeks to provide a regulatory and management system for carbon dioxide to be stored safely and securely in geological storage formations deep underground in Australian offshore waters under Commonwealth jurisdiction.

1.7 The bill emerges at a time when Australia looks to lower substantially its greenhouse gas emissions. As such, it represents one part of a broader legislative commitment to reducing the impact of climate change, including legislation related to a proposed carbon emissions trading scheme.

1.8 As a country which obtains 80 per cent of its electricity from coal-fired power stations and exports somewhere in the vicinity of 30 per cent of the world's coal, it is incumbent upon Australia to reduce the amount of CO_2 it releases into the atmosphere.[6] Carbon capture and storage (CCS), or geosequestration, may prove an effective mechanism for significantly reducing Australia's greenhouse gas emissions.

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4 Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill 2008, *Explanatory Memorandum*, paragraph 5.

5 Initially the bill will authorise the injection and storage of a 'greenhouse gas substance', primarily carbon dioxide. However, the possibility of expanding the scope of operations to other greenhouse gases is incorporated into the bill, for example, SO_2, N_2O, methane and nitrogen accompanying the CO_2.

6 Ms Helen Oakey, Greenpeace Australia, *Proof Committee Hansard*, 29 August 2008, p. 2.

1.9 Along with other mitigation measures, CCS could significantly reduce the costs of stabilising greenhouse gas concentrations. Potentially, CCS technology would allow Australia to continue to draw upon its fossil fuels, which are used for electricity generation and a variety of industrial purposes, without significant emissions of greenhouse gases into the atmosphere.

1.10 If Australia is to develop its CCS potential, it faces a series of regulatory, legal, economic and technical changes. The IEA's Carbon Sequestration Leadership Forum describes the challenge as related to the 4 'Ps':

- **Policy**: government policies are needed to encourage, not inhibit CCS deployment e.g. efficient permitting processes; project incentives; long-term liability for stored CO_2;

- **Price**: a price will have to be established for CO_2 if CCS is to be deployed widely; the cost of CCS will need to come down significantly;

- **Partnerships**: arrangements between CO_2 producers, transporters, storage providers, host communities and governments to enable CCS raises challenges. This may require new forms of partnerships;

- **Public Acceptance**: awareness of CCS is almost non-existent. Gaining public acceptance is critical to widespread CCs deployment.[7]

1.11 However, it is not the intent of the proposed legislation to create drivers for CCS uptake. Rather, the legislation provides an enabling framework in which greenhouse gas storage may be undertaken.

1.12 The decision to use the *Offshore Petroleum Act 2006* (OPA) as the legislative basis for CCS storage was based on the technical similarities between petroleum exploration and extraction and GHG storage. The OPA was also chosen as it was considered a mechanism for managing the interactions between the two activities within a consistent regulatory framework.

1.13 In evidence to the committee, the Department of Resources, Energy and Tourism explained why the OPA allows for the establishment of an effective regulatory framework for greenhouse gas injection and storage:

> The framework for our proposed legislation is primarily based on the carbon dioxide capture and geological storage regulatory guiding principles endorsed by the Ministerial Council on Mineral and Petroleum Resources in 2005. Those guiding principles provide nationally agreed upon recommendations on how to manage critical elements of any carbon capture and storage legal system, including access and property rights, approvals processes, transport and financial considerations. It was the ministerial

7 International Energy Agency, 'Near-term opportunities for carbon dioxide capture and storage: issues identification workshop', OECD/IEA, 2007, p. 5.

> council which endorsed the use of the *Offshore Petroleum Act 2006* as the most appropriate platform on which to develop this legislation. The reason that this was agreed to is to allow for the establishment of a consistent, longstanding and effective framework for greenhouse gas injection and storage activities to ensure that both the existing petroleum industry and the newly emerging greenhouse gas injection and storage industry can co-exist.[8]

Nationally consistent legislation

1.14 This pioneering legislation will see Australia the first country in the world to establish a specific legislative framework for CCS. In its submission, the Australian Petroleum Production & Exploration Association suggested the legislation will:

> …make Australia one of the first jurisdictions to develop a comprehensive legislative and regulatory framework for greenhouse gas (ghg) injection activities.[9]

1.15 ExxonMobil also referred to the pioneering nature of the legislation:

> The vast majority of existing law around ownership and access to underground resources is based on extractive uses such as oil and gas production and mining. There is very little law (statutory or case) regarding ownership of other geologic pore space.[10]

1.16 In observing the current state of legislative and technological advancement in Australia, the abovementioned IEA Carbon Sequestration Leadership Forum report claims:

> Australia is a leader in the science and technology of geosequestration and perhaps the most advanced in terms of the legislation. One of the lessons from current projects is that regulatory trail-blazing is difficult and time consuming.[11]

1.17 The complexities involved in the establishment for a framework of nationally consistent legislation are significant, particularly when one considers the planning, environmental and property law that may be involved in establishing the pipeline required for large-scale CO_2 transportation. Yet, in spite of this complexity, efforts are being made to establish a nationally consistent approach to infrastructure investment in CO_2 transportation.[12]

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8 Ms Margaret Sewell, Department of Resources, Energy and Tourism, *Proof Committee Hansard*, 29 August 2008, p. 8.

9 Australian Petroleum Production & Exploration Association, *Submission 11*, p. 2.

10 ExxonMobil, *Submission 1*, p. 11.

11 International Energy Agency, 'Near-term opportunities for carbon dioxide capture and storage: issues identification workshop', OECD/IEA, 2007, p. 10.

12 For a discussion of the need for a national infrastructure plan see evidence presented by the Victorian government, *Proof Committee Hansard*, 29 August 2008, p. 24.

1.18 While the proposed legislation is concerned with Australian offshore waters, which are under Commonwealth jurisdiction, the retrieval, conversion and transport of CO_2 may take place in the states and territories, prior to sequestration.

1.19 In explaining the current status of CCS legislation in Australia, the Department of Resources, Energy and Tourism explained:

> At the moment, the Commonwealth legislation is the first legislation that has been introduced into a parliament around Australia. Queensland and Victoria are fairly advanced in their own legislation. South Australia is amending its Petroleum Act rather than doing stand-alone legislation. But CO_2 storage is already allowed in South Australia in existing oil and gas title areas...We have tried to deal with the potential interactions between the oil and gas industry and the greenhouse gas storage industry in particular while acknowledging that there are potential interactions with the fishing industry in relation to pipelines and the location of wells. But the states will have to deal with a more complex set of interactions.[13]

Submissions

1.20 The committee advertised the inquiry in the *Australian* and on the committee's website from 26 June 2008. It also wrote to a number of government agencies and organisations alerting them to the inquiry and calling for submissions to be lodged by 15 August 2008 (later extended to 26 August). In total, the committee received 15 submissions. A list of submitters is included in Appendix 1; they are available at: http://www.aph.gov.au/Senate/committee/economics_ctte/offshore_petrol_08/submissions/sublist.htm

Public hearings

1.21 The committee held public hearings in Canberra on 29 August and 1 September 2008 and received evidence from many of those who had made submissions to the inquiry.

Acknowledgement

1.22 The committee thanks those who made submissions to the inquiry and those who provided evidence during public hearings in Canberra. The committee is particularly grateful to the Department of Resources, Energy and Tourism and Geoscience Australia for providing a technical briefing to committee members and for the promptness with which they responded to questions placed on notice at the public hearing.

13 Ms Margaret Sewell, Department of Resources, Energy and Tourism, *Proof Committee Hansard*, 29 August 2008, p. 12.