The Senate

Environment and Communications Legislation Committee

Landholders' Right to Refuse (Gas and Coal) Bill 2015

September 2015

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Committee address
PO Box 6100
Parliament House
Canberra ACT 2600

Tel: 02 6277 3526
Fax: 02 6277 5818
Email: ec.sen@aph.gov.au
Internet: www.aph.gov.au/senate_ec

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Committee membership

Committee members

Senator the Hon Anne Ruston, Chair	LP, South Australia
Senator Anne Urquhart, Deputy Chair	ALP, Tasmania
Senator the Hon James McGrath	LP, Queensland
Senator the Hon Lisa Singh	ALP, Tasmania
Senator the Hon Arthur Sinodinos AO	LP, New South Wales
Senator Larissa Waters	AG, Queensland

Committee secretariat

Ms Christine McDonald, Committee Secretary
Mr Colby Hannan, A/g Principal Research Officer
Mrs Dianne Warhurst, Administrative Officer

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Abbreviations

APPEA	Australian Petroleum Production and Exploration Association
BTEX	benzene, toluene, ethylbenzene and xylene
COAG	Council of Australian Governments
CSG	coal seam gas
CSIRO	Commonwealth Scientific and Industrial Research Organisation
EDO	Environmental Defenders Office
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Cth)
IESC	Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development
LCPA	Limestone Coast Protection Alliance
MCA	Minerals Council of Australia
NFF	National Farmers' Federation
SACOME	South Australian Chamber of Mines and Energy

Chapter 1

Introduction

1.1 On 5 March 2015, the Senate, on the recommendation of the Selection of Bills Committee, referred the Landholders' Right to Refuse (Gas and Coal) Bill 2015 to the Environment and Communications Legislation Committee for inquiry and report.

1.2 The bill is a private senator's bill introduced by Senator Waters. The bill proposes to:

- make gas or coal mining activities undertaken by a constitutional corporation without prior written authorisation from landholders unlawful; and
- ban constitutional corporations from engaging in hydraulic fracturing operations for coal seam gas (CSG), shale gas and tight gas.

1.3 Senator Waters has previously introduced bills in the 43rd and 44th Parliaments that sought to provide landholders with the right to refuse the undertaking of gas and coal mining activities by corporations on certain land. The previous bills were the:

- Landholders' Right to Refuse (Coal Seam Gas) Bill 2011, which lapsed at the end of the 43rd Parliament; and
- Landholders' Right to Refuse (Gas and Coal) Bill 2013, which was negatived at the second reading on 6 March 2014.

Conduct of the inquiry

1.4 The reporting date for the inquiry was initially 7 August 2015; however, on 24 June 2015 the Senate granted an extension of time to report until 31 August 2015. The reporting date was subsequently further extended to 30 September 2015.

Submissions and correspondence

1.5 In accordance with its usual practice, the committee advertised the inquiry on its website and wrote to relevant individuals and organisations inviting submissions. The closing date for submissions was 29 May 2015. The committee received 96 submissions, which are listed at Appendix 1. The submissions may be accessed through the committee's website: www.aph.gov.au/senate_ec.

1.6 In addition to the published submissions, the committee received a significant number of form letters and other correspondence that expressed support for the bill. The committee agreed to publish an example of each type of form letter as a submission. In total, 166 individuals provided a form letter. The committee also received 115 emails that contained short statements of support for the bill or discussed matters beyond the scope of this inquiry. This correspondence was available to the

committee throughout the inquiry, however, the emails were not published as submissions.

Public hearings

1.7 Public hearings were held in Brisbane (on 27 July 2015), Canberra (on 28 July 2015 and 9 September 2015) and Tamworth (on 25 August 2015). A list of witnesses who gave evidence at these hearings is at Appendix 2. The transcripts of evidence may be accessed through the committee's website: www.aph.gov.au/senate_ec.

Acknowledgement

1.8 The committee thanks all of the organisations and individuals who assisted the committee with the inquiry.

Consideration by other committees

1.9 When examining a bill or draft bill, the committee takes into account any relevant comments published by the Senate Standing Committee for the Scrutiny of Bills. The Scrutiny of Bills Committee assesses legislative proposals against a set of accountability standards that focus on the effect of proposed legislation on individual rights, liberties and obligations, and on parliamentary propriety.

1.10 The bill was considered by the Scrutiny of Bills Committee in its *Alert Digest* no. 3 of 2015. That committee had no comment on the bill.[1]

Scope of this inquiry and structure of this report

1.11 In undertaking this inquiry, the committee has given consideration to the evidence received about coal and gas activities to the extent necessary to understand what the bill seeks to achieve and the approach taken in drafting the bill. However, the Senate has not asked the committee to conduct a wide-ranging inquiry into issues associated with coal mining and onshore gas extraction. Rather, the committee has examined a specific legislative proposal. The committee's principal task is to formulate a recommendation to the Senate as to whether this particular bill should be passed. Accordingly, this is not a comprehensive report on various issues that are relevant to the extraction of coal and gas. Many of the issues raised in submissions to this inquiry, particularly those relating to the extraction of CSG, have been considered by other inquiries. A non-exhaustive list of other inquiries is provided at Appendix 3.

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1 Senate Standing Committee for the Scrutiny of Bills, *Alert Digest No. 3 of 2015*, 18 March 2015, p. 17. The Scrutiny of Bills Committee noted that it considered a similar bill in 2014. At that time, the Scrutiny of Bills Committee commented on subclause 9(3) of the earlier bill, which provided that the defendant would bear an evidential burden of proof regarding the existence of prior written authorisation. The Scrutiny of Bills Committee noted the explanation provided to the effect that the matter 'may be said to be peculiarly within the knowledge of the defendant'. In the circumstances, the Scrutiny of Bills Committee did not make any further comment on this matter. See *Alert Digest No. 1 of 2014*, 12 February 2014, p. 9.

1.12 This report comprises four chapters:

- The remaining paragraphs of this chapter provide an overview of the resources that are relevant to the bill as well as a summary of the provisions contained in the bill.
- Chapter 2 outlines some of the evidence the committee received regarding the experiences of individuals who live near coal mining and unconventional gas operations, and highlights the various concerns put to the committee about the effect of these industries. That chapter also provides overviews of:
    - the property and mineral rights framework in Australia, to the extent relevant to the bill;
    - the existing state-based frameworks that govern issues related to land access and compensation; and
    - the current role of the Commonwealth in land access issues and unconventional gas.
- Chapter 3 considers the evidence that the committee received about the overall approach taken and specific drafting used in the bill.
- The committee's conclusion and recommendation is provided at Chapter 4.

Coal and unconventional gas resources in Australia

1.13 As will be outlined later in this chapter, the bill would apply to coal, CSG, shale gas and tight gas resources. The following paragraphs provide background information on these resources and how those resources are extracted.

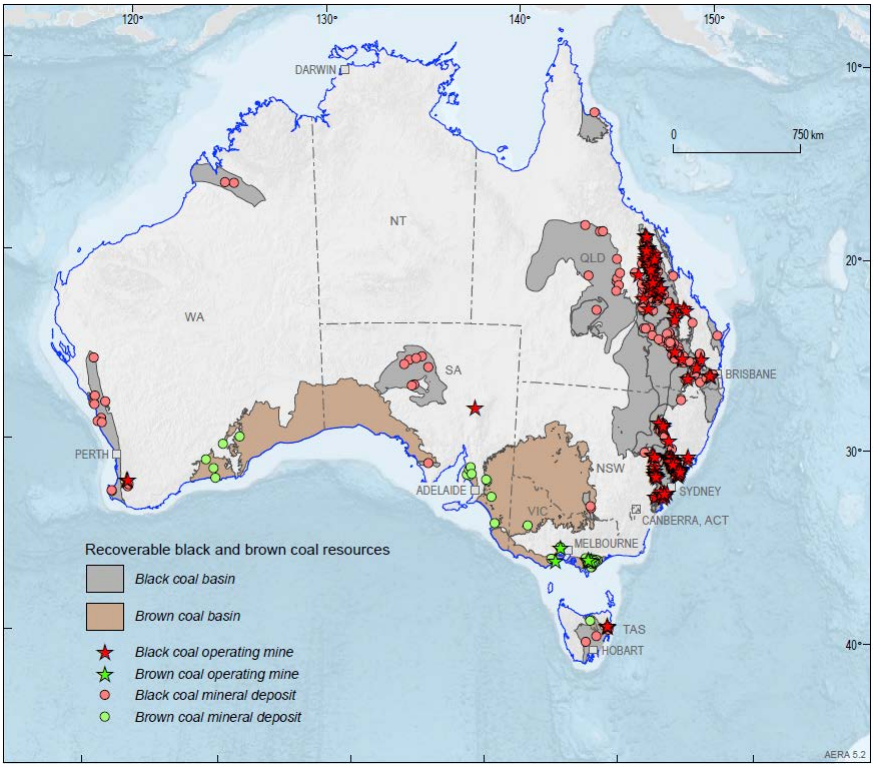
Coal mining

1.14 Coal is Australia's largest energy resource. Substantial amounts of black coal are located in the Sydney Basin (New South Wales) and the Bowen Basin (Queensland). Substantial amounts of brown coal are located in Victoria's Gippsland Basin.[2] Coal mining occurs throughout Australia (see Figure 1.1). The second edition of the *Australian Energy Resource Assessment*, published in 2014, noted that there 'is significant potential for further discoveries of coal in Australia', with estimates that 'over one trillion tonnes of additional coal resources could be present in more than 25 underexplored coal-bearing sedimentary basins within Australia'.[3]

2 Geoscience Australia and Bureau of Resources and Energy Economics, *Australian Energy Resource Assessment*, second edition, 2014, p. 127.

3 Geoscience Australia and Bureau of Resources and Energy Economics, *Australian Energy Resource Assessment*, second edition, 2014, p. 128.

Figure 1.1: Australia's operating black and brown coal mines, 2012



Source: Geoscience Australia and Bureau of Resources and Energy Economics, *Australian Energy Resource Assessment*, second edition, 2014, p. 129.

Unconventional gas and fracking

1.15 Natural resources that are classified as 'unconventional' are those that require 'greater than industry-standard levels of technology or investment to exploit'.[4] With respect to natural gas, unconventional resources include natural gas found in coal beds (CSG), in shale (shale gas), low quality reservoirs (tight gas), or as gas hydrates.[5]

1.16 Figure 1.2 indicates the location of Australia's CSG reserves and gas infrastructure, whereas Figure 1.3 does the same for tight gas and shale gas resources.

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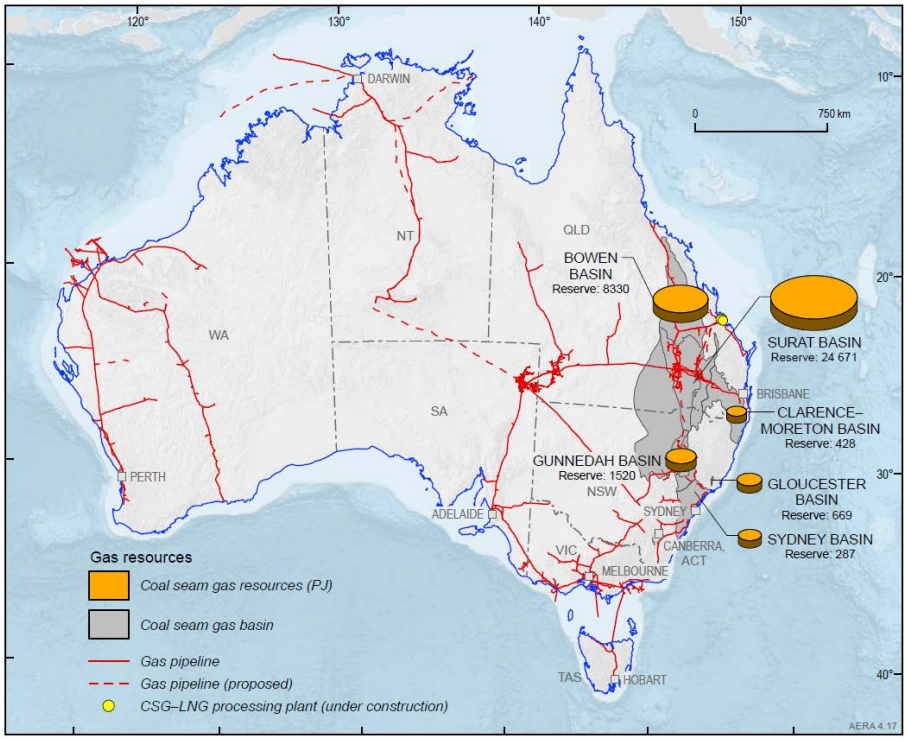
4 Geoscience Australia, 'Unconventional Petroleum Resources', www.ga.gov.au/scientific-topics/energy/resources/petroleum-resources/unconventional-resources (accessed 29 April 2015).

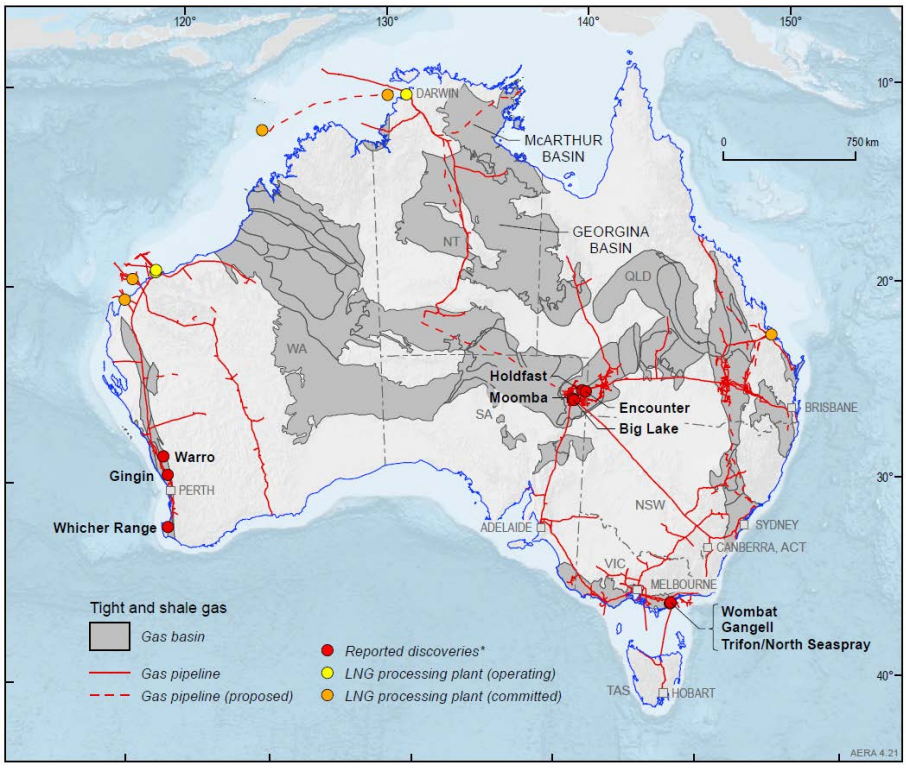
5 CSG is a natural gas extracted from coal seams at depths of 300–1000 metres. CSG is a mixture of a number of gases, but generally contains 95–97 per cent pure methane (this distinguishes CSG from conventional natural gas, which is typically 90 per cent methane). Shale gas is 'mainly methane trapped within shale rock layers at depths greater than about 1500 metres'. CSIRO, 'What is unconventional gas?', www.csiro.au/en/Research/Energy/Hydraulic-fracturing/What-is-unconventional-gas (accessed 29 April 2015). Tight gas is found within low permeability reservoir rocks. Geoscience Australia explains that tight gas 'can be regionally distributed (for example, basin-centred gas), rather than accumulated in a readily producible reservoir in a discrete structural closure as in a conventional gas field'. Geoscience Australia, 'Unconventional Petroleum Resources'.

Figure 1.2: Location of Australia's coal seam gas reserves and gas infrastructure



Source: Geoscience Australia and Bureau of Resources and Energy Economics, *Australian Energy Resource Assessment*, second edition, 2014, p. 97.

Figure 1.3: Tight gas and shale gas resource locations and gas infrastructure



* shows the locations of all shale and tight gas discoveries with reported contingent resources.

Source: Geoscience Australia and Bureau of Resources and Energy Economics, *Australian Energy Resource Assessment*, second edition, 2014, p. 99.

1.17 CSG was first produced in Australia as part of a standalone project in Queensland in 1996.[6] In 2012–13, CSG production accounted for 12 per cent of Australia's total gas production.[7] Ninety per cent of all natural gas produced in Queensland is CSG.[8] Shale gas and tight gas are largely in the exploration stage; for example, the Queensland Government advised that 'exploration for shale and tight gas in Queensland is in its infancy and no production of gas from these formations has occurred to date'.[9] In South Australia, where most potential shale gas resources are located, the first shale gas well started commercial production in October 2012.[10]

1.18 Growth in CSG exploration and production has been encouraged by government decisions; in 2000, the then Queensland government decided that 13 per cent of all power supplied to the state electricity grid would be generated by gas by 2005. This requirement was subsequently increased to 15 per cent by 2010 and 18 per cent by 2020.[11]

1.19 Most CSG production, and expected growth in CSG production, is from the Bowen–Surat basins in Queensland.[12] Australia's CSG production is expected to increase significantly, as shown by Figure 1.4.

6 Queensland Government, *Submission 87*, p. 1; Susan Robertson, 'Unconventional gas: legal issues', *AMPLA Yearbook*, 2012, p. 312.

7 Department of Industry and Science, *Australian Energy Update 2015*, p. 19.

8 Queensland Government, *Submission 87*, p. 1.

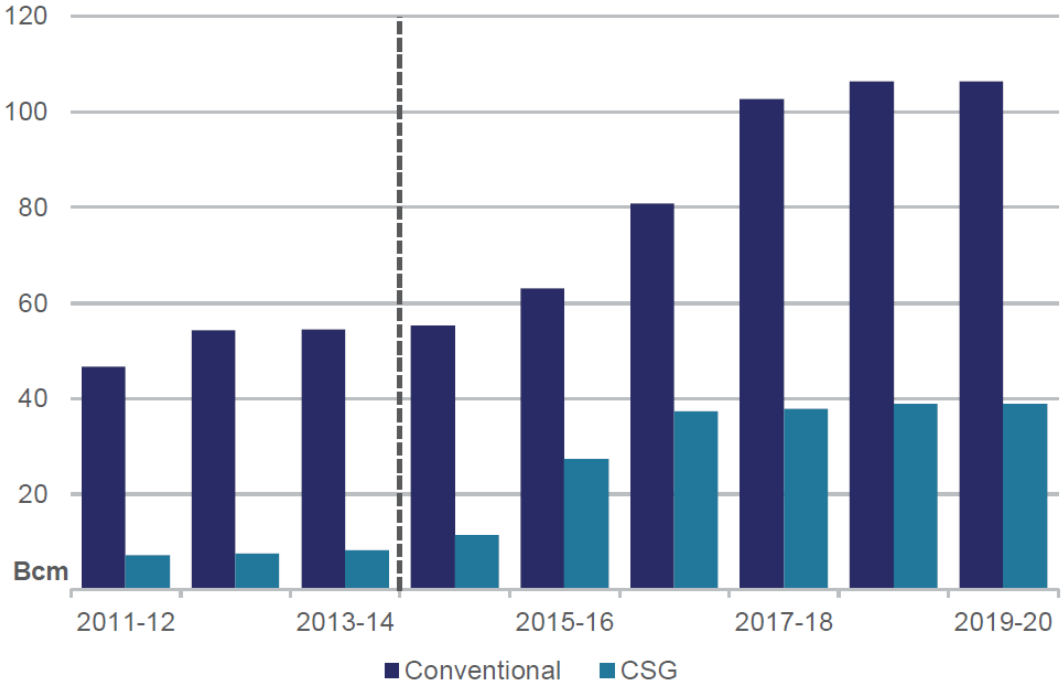
9 Queensland Government, *Submission 87*, p. 5.

10 Bureau of Resources and Energy Economics, *Energy in Australia 2014*, p. 17; Santos, 'Santos announces start of Australia's first commercial shale gas production', *Media release*, 19 October 2012, www.santos.com/Archive/NewsDetail.aspx?id=1347 (accessed 1 September 2015).

11 Geoscience Australia, 'Unconventional Petroleum Resources'.

12 Department of Industry and Science, *Resources and Energy Quarterly*, March 2015, www.industry.gov.au/industry/Office-of-the-Chief-Economist/Publications/Documents/req/REQ-March15.pdf (accessed 29 April 2015), p. 66.

Figure 1.4: Australian gas production outlook by type



Department of Industry and Science, *Resources and Energy Quarterly*, March 2015, www.industry.gov.au/industry/Office-of-the-Chief-Economist/Publications/Documents/req/REQ-March15.pdf (accessed 29 April 2015), p. 66.

Hydraulic fracturing

1.20 The practice of hydraulic fracturing (commonly known as 'fracking', or 'fraccing') is the most common method used by petroleum companies to increase production from a CSG well.[13] Hydraulic fracturing involves fluid being pumped into a well to cause fractures in the surrounding rock, increasing the rate and total amount of the petroleum resource extracted from reservoirs. In Australia, hydraulic fracturing is used in approximately 20 to 40 per cent of CSG wells. Hydraulic fracturing is used for 'wells that intersect lower permeability coal seams', which 'are usually deeper seams'.[14] However, hydraulic fracturing is required for all shale and tight gas wells.[15]

1.21 The fluid used for hydraulic fracturing operations consists of:

- water (84 to 96 per cent of the fracking fluid);
- proppant, such as sand (three to 15 per cent); and
- added chemicals (about one per cent), which commonly include:

13 CSIRO, 'What is hydraulic fracturing?', www.csiro.au/en/Research/Energy/Hydraulic-fracturing/a-What-is-hydraulic-fracturing (accessed 1 May 2015).

14 CSIRO, 'What is hydraulic fracturing?'.

15 Queensland Government, *Submission 87*, p. 5.

- guar gum (a food thickening agent), which is used to create a gel that transports sand through the fracture;
- bactericides, such as sodium hypochlorite (pool chlorine) and sodium hydroxide (used to make soap), which are used to prevent bacterial growth that can contaminate gas and restrict gas flow;
- 'breakers', such as ammonium persulfate (which dissolve hydraulic fracturing gels so that they can transmit water); and gas surfactants, such as ethanol and the cleaning agent orange oil (which are used to increase fluid recovery from the fracture); and
- acids as alkalis 'acids and alkalis, such as acetic acid (vinegar) and sodium carbonate (washing soda) to control the acid balance of the hydraulic fracturing fluid'.[16]

1.22 The CSIRO provides the following explanation of how fracking is carried out:

> Typically, a well is fully cased from top to bottom with steel casing. To gain access to the coal, the casing is perforated at specific intervals along the well, where the fracture treatment is to be carried out. Hydraulic fracturing typically involves injecting fluid made up of water, sand and chemical additives under high pressure into the cased well. The pressure caused by the injection typically creates a fracture in the coal seam where the well is perforated. For a large CSG treatment, the fracture might typically extend to a distance of 200 to 300 metres from the well. The fractures grow slowly. For example, an average velocity may be less than 10 metres per minute initially and slowing to less than one metre per minute at the end of the treatment. The sand in the hydraulic fracturing fluid acts to keep the fracture open after injection stops, and forms a conductive channel in the coal through which the water and gas can travel back to the well. After the fracturing is complete, most of the hydraulic fracturing fluid is, over time, brought back to the surface and treated before being used again or disposed of.[17]

16 CSIRO, 'What is hydraulic fracturing?'.

17 CSIRO, 'What is hydraulic fracturing?'.

Overview of the bill

1.23 When reviewing proposed Commonwealth legislation, it is essential to consider whether the clauses are supported by a constitutional power and whether any constitutional prohibitions have been contravened. The bill and its explanatory memorandum do not expressly state which of the constitutional heads of power the bill is relying on. It is clear, however, that the bill relies on the corporations power in paragraph 51(xx) of the Constitution, as the prohibitions contained in the bill apply to constitutional corporations.[18] Evidence received by the committee about the constitutional law matters relevant to the bill is outlined in Chapter 3.

1.24 The remaining paragraphs in this chapter provide an overview of the key clauses in the bill.

A right for landholders to refuse entry to land

1.25 Part 2 of the bill addresses property rights issues associated with gas or coal mining. Key definitions in this part of the bill are 'gas or coal' and 'gas or coal mining activity', which are defined as follows:

- 'gas or coal' includes coal, CSG, shale gas and tight gas; and
- 'gas or coal mining activity' including any activity undertaken for the purpose of exploring for gas or coal, or mining or producing gas or coal (including underground coal gasification).[19]

1.26 A constitutional corporation would commit an offence if it conducted gas or coal mining activities, or entered or remained on land to do so, without having an 'ownership interest'[20] in the land or having the prior written authorisation of each person with an ownership interest in the land.[21]

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18 Constitutional corporations are defined in the bill as a corporation to which paragraph 51(xx) of the Constitution applies (clause 4 of the bill). This includes foreign corporations, and trading or financial corporations formed within the limits of the Commonwealth. Part 4 of the bill includes arrangements that address joint ventures or partnerships consisting of two or more constitutional corporations.

19 Clause 4.

20 Clause 5 provides that a person is considered to have an ownership interest in land if the person 'has a legal or equitable interest in it or a right to occupy it'. However, a person does not have an ownership interest in land if the interest or right 'arises as a result of a right granted under a law of the Commonwealth, a State or a Territory to engage in gas or coal mining activities'. In her second reading speech, Senator Waters referred to farmers, graziers, residents, local councils and native title holders as landholders targeted by the bill. See Senator Larissa Waters, *Senate Hansard*, 4 March 2015, p. 1170.

21 Subclause 10(1).

1.27 The prior authorisation must contain certain information including, among other things, 'an independent assessment of the current and future risks associated with the proposed gas or coal mining activity on, or affecting, the land and any associated groundwater systems'.[22]

1.28 The bill specifies circumstances where the authorisation would be invalid. These circumstances include where the corporation applies to a person who has an ownership interest in the land and the corporation does not advise the person of their right to refuse authorisation, or that they should seek independent advice about the authorisation before signing.[23]

1.29 The offence would apply to relevant gas or coal mining activities that occur on or after commencement (the day after Royal Assent).[24]

Penalty

1.30 The maximum penalty for a constitutional corporation that commits the offence in subclause 10(1) would be 5,000 penalty units (at the time of writing, the penalty would be $900,000).[25] Further, a constitutional corporation that commits this offence is deemed to have committed 'a separate offence in relation to each day (including a day of conviction for the offence or any later day) during which the contravention continues'.[26]

Remedies and costs

1.31 Clause 13 of the bill provides that, without limiting the relief that a court may grant to a plaintiff, the relief may include an injunction or interim injunction. Any costs incurred by the plaintiff in seeking relief in court are to be paid by the defendant, regardless of the outcome. Exceptions are provided if the action was instituted vexatiously or without reasonable cause, or if the court considers it would be unreasonable, in all the circumstances, to order that the defendant pay all costs.

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22 Subclause 12(2).

23 Subclause 12(3).

24 Clauses 2, 9(1). The explanatory memorandum notes that the intention is that prior written authorisation must be secured prior to any new activities commencing, not activities already being undertaken. The following example is provided: '…if a corporation has already started exploring for gas or coal on particular land before the Act commences, authorisation to continue that activity after commencement will not be required. Authorisation will be required, however, if the corporation wishes to engage in activities for the purpose of producing gas or coal on that land after commencement'. Explanatory Memorandum, pp. 1–2.

25 From 31 July 2015, section 4AA of the *Crimes Act 1914* provides that one penalty unit equals $180. The penalty unit will be indexed every three years to the consumer price index, effective from 1 July 2018.

26 Subclause 10(2).

'Unreasonable' refusal

1.32 The bill does not address the issue of a landholder 'unreasonably' refusing access. In her second reading speech, however, Senator Waters stated that the resources remain vested in the states and if the resources are needed, the existing compulsory acquisition arrangements available to the Commonwealth and state governments provide 'a sufficient safeguard against a landholder "unreasonably" refusing access authorisation'.[27]

Ban on hydraulic fracturing

1.33 Part 3 of the bill would ban constitutional corporations from engaging in hydraulic fracturing operations (clause 14). The maximum civil penalty for contraventions of clause 14 would be 50,000 penalty units (at the time of writing, this would equate to $9 million). The Environment Minister may apply to the Federal Court on behalf of the Commonwealth for a civil penalty order within six years of a contravention.[28] The court may order a pecuniary penalty for each contravention.[29]

1.34 Where a person has engaged in or proposes to engage in conduct contrary to clause 14, under clause 15 of the bill the Environment Minister, an interested person, or a person acting on behalf of an unincorporated organisation that is an interested person, may apply to the Federal Court for a prohibitory, mandatory or interim injunction. An interested person includes individuals and organisations:

- whose interests have been, are or would be affected by the conduct or proposed conduct; or
- that have engaged in 'a series of activities for the protection or conservation of, or research into, the environment' at any time during the two years immediately before the conduct or, in the case of proposed conduct, during the two years before making the application for an injunction (in the case of organisations, the organisation's objects or purposes must also include environmental protection, conservation or research).[30]

1.35 For an individual to qualify as an interested person, they must also be an Australian citizen or ordinarily resident in Australia or an external territory. For an organisation to be considered an interested person, they must also be incorporated or otherwise established in Australia or an external territory.[31]

27 Senator Larissa Waters, *Senate Hansard*, 4 March 2015, p. 1171.

28 Subclause 19(1).

29 Subclause 19(2).

30 Subclauses 15(6) and (7).

31 Subclauses 15(6) and (7).

Chapter 2

Regulation of coal and onshore gas activities

2.1 The bill responds to the tension that can exist between private land tenure and Crown ownership of petroleum resources (the extraction of which is licenced by the Crown to petroleum companies). The bill also responds to concern in some sections of the community regarding the practice of hydraulic fracturing (commonly referred to as 'fracking').

2.2 This chapter introduces these issues by outlining some of the evidence the committee received from landholders about their experiences living near coal mining and unconventional gas extraction activities and how they deal with the companies that undertake these activities. As explained in Chapter 1, however, the Senate has not asked the committee to conduct a wide-ranging inquiry into issues associated with coal mining and onshore gas extraction. Rather, the committee has examined a specific legislative proposal. Although the committee acknowledges the evidence it has received that expressed concern about coal mining and unconventional gas operations, the committee's deliberations depend on whether the bill can fit within Australia's legal framework and be implemented effectively.

2.3 The remaining sections of this chapter examine the current framework of property and mineral rights in Australia, to the extent relevant to the bill, and the role of the Commonwealth in land access issues and the regulation of onshore minerals and petroleum exploration and production.

Experiences living near coal mining and unconventional gas extraction

2.4 During this inquiry, the committee heard how resource activities on farmland can present challenges for landholders when going about their ordinary business, and the risks or damage to their property that can result. For example, ditches dug for pipe construction can make it difficult for farmers to traverse their property and can lead to livestock injuries.[1] The opening and closing of farm gates is also an issue.[2] Landholders explained how they have encountered difficulties when dealing with the

1 No Fracking WAy, *Submission 15*, p. 3.

2 Mr Leslie Manning of p&e Law explained that he has clients who 'had to go and re-identify all of their breeding stock because gates have been left open and cattle have intermingled'. Mr Neil Cameron of the Basin Sustainability Alliance added that: '…not only were gates that had been closed sometimes left open, you also had the other dangerous situation where a gate that had been deliberately left open so stock could access water for their survival was shut'. Mr Leslie Manning, Director, p&e Law, *Proof Committee Hansard*, 27 July 2015, p. 41; Mr Neil Cameron, Committee Member, Basin Sustainability Alliance, *Proof Committee Hansard*, 27 July 2015, p. 20.

petroleum companies, such as instances of a disrespectful approach taken to accessing and traversing their land.[3]

2.5 Concern was also expressed about:

- competing water use—the committee received evidence that farmers face restrictions on their water use while petroleum companies enjoy unrestricted access;[4]
- air pollution and noise from mining and unconventional gas extraction, such as the noise and pollution from the increased number of diesel trucks in the area, and noise from compressor stations and flaring;[5]
- concern that contamination near food production areas would prevent farmers from supplying national vendor declarations, which would jeopardise their access to local and export markets;[6] and
- the inability to manage risk associated with damage caused by contamination related to coal seam gas (CSG) extraction on neighbouring properties, particularly as insurance companies do not insure against this risk.[7]

2.6 Evidence was also received about the implications of coal and gas activity for the lifestyles of people who live in rural communities. Mrs Sally Hunter, who is the president of the organisation People for the Plains, told the committee:

> You go to be in the agriculture industry because a lot of times that is the type of environment that you want for your children growing up et cetera. It is then as if you have been placed into an industrial zone outside a town. You are no longer in a rural zoning; you are in an industrial estate and you really have no choice about that. You are not prepared for that and you are not used to that. If you buy a block in an industrial estate, at least you know

3 For example, see Mr George Bender, Spokesperson, Hopeland Community Sustainability Group, *Proof Committee Hansard*, 27 July 2015, pp. 23–24.

4 See Mr Leslie Manning, p&e Law, *Proof Committee Hansard*, 27 July 2015, p. 39; Mrs Pan Bender, Spokesperson, Hopeland Community Sustainability Group, *Proof Committee Hansard*, 27 July 2015, p. 28.

5 No Fracking WAy, *Submission 15*, p. 5.

6 Ms Heather Gibbons, *Submission 13*, pp. 16–17; Livestock SA, *Submission 20*, p. 2; Ms Leanne Emery, *Submission 51*, p. 6.

7 For example, the committee was informed of a case where a dam of produced water from CSG activities burst, resulting in water flowing across neighbouring properties and beyond. The witness observed that the landholder in question could not manage this risk effectively as they cannot insure against this risk and was not in a position to take legal action against the state government, gas company or neighbour. Mr Phil Laird, National Coordinator, Lock the Gate Alliance, *Proof Committee Hansard*, 25 August 2015, p. 8. For other examples, see People for the Plains, *Submission 50*, p. 3 and Ms Sarah Ciesiolka, *Submission 52*, p. 2.

> what you are in for and you get some advantages out of it. When it comes to your doorstep, it is a totally different kettle of fish.[8]

2.7 Many submissions referred to potential environmental and health effects related to unconventional gas extraction. Submitters argued that there is concern internationally about various potential risks to the environment and health caused by hydraulic fracturing and unconventional gas activities more generally. Among other things, these risks include drinking water being affected as a result of underground migration of methane and/or fracking chemicals associated with faulty well construction, surface spills that could result in soil and water contamination, and inadequate wastewater treatment leading to surface water contamination.[9]

2.8 The potential health effects associated with unconventional gas extraction particularly attracted comment. The committee heard reports of residents with various symptoms, such as bleeding noses, nausea and headaches, who had not experienced these symptoms before unconventional gas activities commenced in their area.[10] However, QGC, a gas company, argued that no links have been drawn between health issues and CSG production, despite a 'number of substantial bodies of work undertaken in response to these claims'.[11]

2.9 Other concerns expressed about hydraulic fracturing and unconventional gas extraction more generally included:

- the 'substantial amount of water required in unconventional gas extraction', which No Fracking WAy submitted may be up to 20 million litres of fresh water per fracked well (including up to 4000 litres of proppants and up to 200,000 litres of chemicals)—No Fracking WAy argued that the 'unconventional gas and coal industries compete with the water needs of agriculture, of urban and regional populations, and of the sustainability of our natural environment';[12]
- that although accidents can happen in all regulated industries, accidents related to hydraulic fracturing could present more widespread problems as the

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8 Mrs Sally Hunter, President, People for the Plains, *Proof Committee Hansard*, 25 August 2015, p. 18.

9 Limestone Coast Protection Alliance (LCPA), *Submission 91*, p. 229. The LCPA cited the following report by the New York State Department of Health: *A Public Health Review of High Volume Hydraulic Fracturing for Shale Gas Development*, December 2014.

10 The committee was also informed of international medical studies that analysed hospital admissions and indicated that hospitalisations for heart conditions and neurological illnesses were higher among people who live near unconventional oil and gas extraction activities. See Dr Geralyn McCarron, *Proof Committee Hansard*, 27 July 2015, p. 56.

11 QGC provided a list of studies undertaken in Queensland. See QGC, *Submission 22*, p. 4.

12 No Fracking WAy, *Submission 15*, p. 2.

movement of water between aquifers could mean that any contamination would not be contained to one aquifer;[13] and

- the integrity and permeability of old, inactive wells—No Fracking WAy argued that the cement and steel could deteriorate over time, posing a contamination risk.[14]

Property and mineral rights in Australia

2.10 The tension that can exist between landholders and resource companies is a consequence of Australia's system of mineral rights. Landownership in Australia 'is subject to an inherited feudal tenure framework'; meaning that the state, in right of the Crown, is 'the ultimate owner of all land and may exercise sovereign power over all of its inhabitants'.[15] Ms Kate Galloway, a senior lecturer at James Cook University's College of Business, Law and Governance, explained that interests in land may generally be held as freehold, native title or state tenures (leasehold). Ms Galloway commented that freehold 'can be held either as a legal interest (registered title) or an equitable interest (broadly speaking, unregistered but still recognised by law)'. Ms Galloway added that interests in land 'extend beyond freehold estates, to easements, mortgages and leases—all of which can be either legal or equitable'.[16]

2.11 As Ms Kate Galloway observed in her submission, however, 'when the Crown in the right of the state grants an interest in land, it reserves mineral rights to the Crown'.[17] Professor Samantha Hepburn of Deakin Law School explained:

> The common law scope of private land ownership has been modified by legislation enacted in each state and territory which purports to vest the ownership of minerals and resources back to the state. Indeed, all Australian states and the Northern Territory have legislatively declared that petroleum in situ is owned, without exception, by the Crown regardless of when the land containing the petroleum passed into private ownership.[18]

2.12 Professor Hepburn noted that the ownership of resources by the Crown 'is grounded in the core assumption that the state is the appropriate owner of the resources because it has the capacity to ensure that those resources are properly utilized for the common benefit of all citizens'.[19]

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13 Livestock SA, *Submission 20*, p. 2.

14 No Fracking WAy, *Submission 15*, p. 7. However, the CSIRO provided evidence about the risk of barrier failure and how strong regulatory regimes can reduce this risk. See Professor Damian Barrett, Research Director, Energy, CSIRO, *Proof Committee Hansard*, 28 July 2015, p. 35.

15 Professor Samantha Hepburn, *Submission 86*, p. 3.

16 Ms Galloway noted that the bill uses the term 'legal or equitable interests' in land, which is likely to cover all of these freehold interests. Ms Kate Galloway, *Submission 10*, p. 1.

17 Ms Kate Galloway, *Submission 10*, p. 2.

18 Professor Samantha Hepburn, *Submission 86*, p. 2.

19 Professor Samantha Hepburn, *Submission 86*, p. 2.

2.13 Professor Hepburn submitted that when the state 'issues a resource title to a mining or petroleum proponent, it authorizes the holder to exercise ownership rights it has statutorily reclaimed'. Such action 'necessarily diminishes the scope of the ownership entitlements of a private landholder'. Professor Hepburn stated that under the current legal framework:

> …the rights of the resource title holder may be accompanied by an express or implied access entitlement to access the resource by crossing the land. The private landholder is bound to uphold this entitlement and cannot deny the rights of the state in this context. The state is the absolute owner of the land. The state has reclaimed ownership of the resource. The tenure framework gives the state the power to disaggregate those resources and reclaim them. Access to the resource is a necessary consequence of resource ownership. Access entitlements may be constructed as a[n] express requirement of the resource title or, pursuant to expressly conferred ancillary rights or, as a right which is implied and necessary.[20]

2.14 Similarly, Ms Galloway noted that although the mineral rights granted by the state are less extensive than 'the bundle of rights comprising the concept of ownership of land' and attach only to the minerals, they 'have implicit rights of access and to lay waste to the land itself'.[21]

2.15 Ms Galloway provided a useful overview of how the tensions between interests in land and mineral rights can be concerning to landholders. Ms Galloway stated that the current framework 'affects both the object and the extent of [the landholders'] ownership' for two reasons:

> First, the activity of mining and some lesser mineral rights, lawfully undertaken, consume the land itself. The activities destroy the object of landholders' ownership, even though ownership rights continue. Even fulfilment of remediation requirements cannot reinstate the landholder's land. Compensation equalises the respective values of the interests at stake, but the exercise of the mineral rights alters what might be called the property itself. Secondly, while ostensibly a narrower bundle of rights, the mineral rights operate despite the landholder's rights, affecting the extent of their ownership.[22]

2.16 Some submitters expressed concern about the current framework of competing property and mineral rights. An example is as follows:

> It is ridiculous when freehold land is paid for and owned, that it can be so severely affected by others rights which a landowner is obliged to defer to. Those third parties have not purchased the land, do not pay rates on the land, however, when they come onto it, they treat it as their own, abuse it,

20 Professor Samantha Hepburn, *Submission 86*, pp. 4–5.

21 Ms Kate Galloway, *Submission 10*, p. 2.

22 Ms Kate Galloway, *Submission 10*, pp. 2–3.

> disregard landowners rights (fencing, gates, stock etc) and complain about landowners trying to fight to protect what they have purchased.[23]

2.17 Mr Ken Grundy argued that 'both the extent of mining and methods of extraction employed today, bring into question, whether the landholder's rights need revision'. He submitted:

> When the 'right to mine' laws were established, mining was very low key. It was a pick and shovel task, often digging horizontal tunnels into the side of stony hillsides. The arrival of crude mechanisation enabled considerable expansion and delivered more 'product' per man hour but it was quite meagre compared to the modern scene.
>
> In the 21st century, the machinery is so massive that whole hills and small mountains are devoured within a couple of years. A regular 6 foot man is dwarfed by the machines, many of which are 'driven' from a computer in a city office. New techniques of extraction are employed with potential detrimental side-effects to the environment.[24]

Existing state frameworks for access and compensation

2.18 Although the states retain mineral rights and permit companies to extract the resource, various state legislatures have recognised, and attempted to address, certain issues related to land access. In South Australia, for example, under the *Mining Act 1971* and *Petroleum and Geothermal Act 2000*, where a company has a license or lease to explore and extract natural resources the landholders are required to be consulted at the application and approval stages. There are also provisions that address compensation. The South Australian Chamber of Mines and Energy (SACOME) explained that under this framework, the landholder must be notified of the intention to enter the land by a notice of entry 21 days before access is required. After receiving a notice of entry:

> …the landholder has the right to object to the entry requirements as defined in the relevant sections of the Acts fourteen days to three months after service of the notice. Once the objection is lodged the company can accept the objection and move to a different area or proceed to negotiate access through the Wardens or Environment, Resources and Development courts where applicable. These courts upon determining whether substantial hardship or damage to the land has or can occur can set areas not to be used or what conditions they can be accessed by. Furthermore the courts can determine compensation for the landholder where access has been allowed under specific conditions.[25]

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23 Mr David and Ms Leah McDonnell, *Submission 2*, p. 1.

24 Mr Ken Grundy, *Submission 6*, p. 1.

25 South Australian Chamber of Mines and Energy (SACOME), *Submission 23*, p. 3.

2.19 In Queensland, the *Petroleum and Gas (Production and Safety) Act 2004* requires 'that resource companies enter into access agreements or "Conduct and Compensation Agreements"…with owners and occupiers of private land, prior to carrying out "advanced activities" (e.g. construction of wells and other infrastructure) on their land (subject to a range of exemptions)'.[26] The *Water Act 2000* (Qld) also imposes a 'make good obligation' on petroleum tenure holders if an existing water bore owned by the landholder has an impaired capacity as a result of the extraction of underground water associated with petroleum operations.[27]

2.20 EDO New South Wales submitted that the laws in New South Wales generally allow exploration for, and production of, CSG and coal without landholder consent. Dr Emma Carmody, a solicitor at EDO New South Wales, added:

> In relation to exploration, access agreements have to be signed before exploration can take place, but ultimately the landholder is compelled to enter into an access requirement. Really, the best they can do is make sure the terms of the agreement are as favourable as possible. There are some exceptions. For example, in relation to exploration activities consent is required within 200 metres of a dwelling house that is a principal place of residence. In relation to production activities, similarly consent is required for activities within 200 metres of a dwelling house. However, we would argue that, for a large open-cut coalmine, 200 metres is an insignificant distance. We can speak most authoritatively about New South Wales but, having conferred with our colleagues, in other states and territories the laws are similarly weighted in terms of mining and petroleum companies.[28]

2.21 Further, Dr Carmody commented that New South Wales landholders are entitled to compensation 'if the surface of their land is "injuriously affected" by CSG activity'. Dr Carmody noted, however, that this does not apply to damage to aquifers given they are below the surface of the land, and that 'it is difficult to demonstrate the cause of harm on the basis of limited data'.[29]

2.22 It was also made clear to the committee that state legislation does not support the right of a private landholder to ultimately veto access to land. For example, Professor Hepburn explained that although it 'is often claimed' that the relevant [Western Australian] legislation[30] confers a right to veto access, the legislation only

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26 Australian Petroleum Production and Exploration Association (APPEA), *Submission 21*, p. 5.

27 *Water Act 2000* (Qld), chapter 3, part 5.

28 Dr Emma Carmody, Policy and Law Reform Solicitor, Environmental Defenders Office New South Wales (EDO NSW), *Proof Committee Hansard*, 27 July 2015, p. 4.

29 Dr Emma Carmody, EDO NSW, *Proof Committee Hansard*, 27 July 2015, p. 5.

30 *Petroleum and Geothermal Energy Resources Act 1967* (WA), s. 16.

'imposes a qualified obligation to obtain consent from landholders where the land fits particular exemption requirements'.[31]

2.23 Nevertheless, the state legislation provides a framework within which resource activities are to be conducted and also include various protections. The following table was provided by the Australian Petroleum Production and Exploration Association (APPEA), which it advised is based on information contained in a 2013 report of the Productivity Commission. The table compares the various state legislative arrangements that provide protection to landholders when land is accessed.

Table 2.1: Comparison of state protections for access to private land for exploration

Protection	***NSW***	***VIC***	***QLD***	***WA***	***SA***	***TAS***
Land access arrangement agreed to with land holder before the explorer can access land	Yes	Yes	Yes	Yes	No~	No#
Compensation available to land holder for loss or damage arising from exploration activity	Yes	Yes	Yes	Yes	Yes	Yes
Compensation for legal costs incurred by land holders in negotiating access agreements	Yes	No^	Yes	Yes	Yes	No^
Compensation for other costs associated with negotiating access agreements	No	No^	Yes*	Yes**	Yes***	No^
Exploration prohibited within specific distances of buildings and other improvements	Yes	Yes	Yes	Yes	Yes	Yes
Landholder veto over exploration on agricultural land	No	No^^	No	Yes^^^	Yes+	No

Note: The Northern Territory is not included as most private land is restricted to cities and towns. Outside of the urban areas, around half of all land is Aboriginal land and the other half is Crown land under pastoral lease.

~ Authorisation to enter private land can be provided through the written consent of the land holder or by serving the land holder a statutory form (Notice of entry on land) under the *Mining Act 1971* (SA).

No formal agreement is required between the landholder and the explorer before exploration commences. However, where exploration involves ground disturbance, officers from the Department of Infrastructure, Energy and Resources are generally involved in the oversight of exploration activities to ensure that these activities adhere to the work plan.

^ Although there is no specific reference to compensation for legal, or other, costs incurred by land holders in negotiations with explorers, the legislation does not 'rule out' the provision of such compensation.

31 Professor Hepburn explained that the relevant statute sets out that the holder of a petroleum title shall not enter the land for the purpose of exploration or recovery of petroleum or geothermal energy resources unless the consent in writing of the owner has first been obtained. This is only applicable, however, to private land not exceeding 2000 m^2 or, land used as a cemetery or burial place or, land less than 150 metres from a cemetery, burial place, reservoir or substantial improvement (which is to be determined at the Minister's discretion)'. Professor Samantha Hepburn, *Submission 86*, p. 6.

* The Queensland Land Access Code provides for the compensation of reasonable accounting and land valuation costs incurred by the landholder.

** The *Mining Act 1978* (WA) provides for reasonable legal or other costs of negotiation for private land under cultivation.

*** The South Australian guidelines make specific reference to compensation for legal costs and the *Mining Act 1971* (SA) provides for the reasonable costs incurred by the landholder in connection with negotiations.

^^ The Minister can have agricultural land excised from the licence where the economic benefit of continuing to use that land for agricultural purposes is greater than the work proposed in the licence.

^^^ This applies to mineral tenements, but not to oil and gas tenements.

+ Exploration on cultivated land requires landholder consent. Where agreement cannot be reached, the explorer has the option of seeking a determination through the courts.

Source: APPEA, *Submission 21*, p. 9; adapted from Productivity Commission, *Mineral and Energy Resource Exploration*, Report no. 65, September 2013.

2.24 Various states have reviewed aspects of their land access and improvements to these frameworks are expected to result. For example, the New South Wales Farmers Association (NSW Farmers) noted that the New South Wales Government commissioned Mr Bret Walker SC to conduct a review of arbitration arrangements. Ms Danica Leys from NSW Farmers advised that 'a number of good recommendations' were made by the Walker review, including ensuring that landholders can have legal representation at the negotiation table and to provide some compensation for legal costs and time spent at arbitration. Ms Leys noted that these recommendations have not yet been implemented, 'but they are coming in the near future'.[32]

2.25 Mr Charlies Thomas from the National Farmers' Federation (NFF) added:

> Queensland went through a fairly comprehensive review of their land access arrangements probably four or five years ago now. I think Victoria are looking at doing a similar process now, given that onshore gas is starting to take place in that state. Other states have not been through comprehensive review processes.[33]

Issues with the state frameworks

2.26 The principal problem that submitters identified with the state access and compensation arrangements is that they do not address the imbalance in bargaining positions between petroleum companies and individual landholders.

2.27 Mr Leslie Manning from p&e Law stated the lack of bargaining power for landholders is 'very evident'. He explained that it 'comes from a lack of ability by many farmers to actually understand the information that is being put before them and the quantity of information that is being put before them'. Mr Manning provided the following example:

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32 Ms Danica Leys, Policy Director, Environment, New South Wales Farmers Association, *Proof Committee Hansard*, 28 July 2015, p. 24.

33 Mr Charlie Thomas, General Manager, Agribusiness and Rural Affairs, National Farmers' Federation (NFF), *Proof Committee Hansard*, 28 July 2015, p. 24.

> Recently, in a matter that is going through court at present, we sought disclosure from the Department of Environment and Heritage Protection in relation to an environmental impact statement, various rehabilitation plans and other documents that were required to form part of the environmental authority, and we were delivered a disc with over 3,000 pages on it to review. So, the extent of the paperwork that a farmer has to get to grips with and understand is quite immense.[34]

2.28 Mr Manning added:

> The clients get left in the position that they have to trawl through these documents to try to work out what information is there, what is relevant to their land, without the expertise that the companies have. If you put yourself into the position of a farmer, he is running a business; his business is operating his farm. He is given this material, and the party on the other side has myriad experts to assist, facilitate and explain. That is a significant imbalance of power. There is a real difference between the knowledge of the companies and the knowledge of the farmers, and that is one of the things we tried to rectify in the early days of trying to negotiate conduct and compensation agreements. We attempted to put clauses into agreements that said that the company guarantees that the client—the farmer—has all the necessary documents from which to make a decision and if there is a failure to produce any of those documents then the agreement can be set aside. None of those clauses have been taken up. We have not been able to get them into any agreements. But that is just an example of the sort of imbalance of power that starts with a lack of information[35]

2.29 Inadequate payments and broad conditions used in contracts were also highlighted. An example was provided of a gas company offering a landholder $265 to develop wells and 'associated petroleum infrastructure'. The landholder observed that:

> No-one knows what 'associated petroleum infrastructure' is. It could mean anything. To allow them on for $265 was absolutely stupid.[36]

2.30 Ms Laura Hogarth from Creevey Russell Lawyers, told the committee that landholders use all reasonable endeavours to enter into a conduct and compensation agreement, as they are required to under Queensland law. However, she added that, over time, the landholder discovers that they have no option other than to enter into the agreement that the petroleum company seeks:

> As time goes on and they realise how inflexible the company is about the location and intensity of their activities and the amount of compensation on offer, they realise that there is not going to be a good outcome for the

34 Mr Leslie Manning, Director, p&e Law, *Proof Committee Hansard*, 27 July 2015, p. 38.

35 Mr Leslie Manning, Director, p&e Law, *Proof Committee Hansard*, 27 July 2015, p. 38.

36 Mr George Bender, Hopeland Community Sustainability Group, *Proof Committee Hansard*, 27 July 2015, p. 23.

> landholder and, by that time, they have costs for accounting, legal and valuation and possibly other environmental experts such as dust or overland flow of water experts that are required by the valuer. So they may be out of pocket by a significant amount for months or years and the only way they can cover those expenses is to sign a [conduct and compensation agreement], as bad as it is. So that is a serious concern.[37]

2.31 The imbalance in bargaining position under the current state laws was also noted by the NFF, which stated that:

> The NFF's view is that a forced negotiation, where the landholder does not have the option to refuse an agreement, is not an equal or fair negotiation. Fixed outcome negotiation provides an unfair advantage to well-resourced mining and gas companies, which employ skilled professionals to negotiate these types of agreements on a regular basis.[38]

2.32 Another issue that concerned some submitters is that the current frameworks are based on the principle of 'coexistence'. Mr Drew Hutton, the President of the Lock the Gate Alliance, commented that coexistence is 'nonsense'. He argued:

> The more remote the land, obviously the more likely it is that coexistence can occur. In a great many areas in southern Queensland intensive agricultural pursuits are carried out. The more intensive those pursuits, the less that coexistence as possible. We have got coalmining and coal seam gas occurring in a lot of areas in the Darling Downs for example, where there is intensive cropping and other forms of intensive agriculture in fairly closely settled areas.[39]

2.33 Miss Nicholson from the Basin Sustainability Alliance argued that coexistence has only emerged as an issue recently because of the rapid growth in the industry, compared to the activity that had previously been carried out for decades:

> The fact is: until recently, all CSG, and the majority of coalmining, was undertaken for Australia's domestic supply and was not comparable to the tsunami being rolled out across the country now to feed an export market. In fact, I do not even know—and I have been on the land for 40 or 50 years—where those original CSG wells were. I was a lawyer some time ago, and we never looked at the Resource Industry Act. I do not even know where those CSG wells were. There were no problems because there were so few—similarly with coalmining.[40]

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37 Ms Laura Hogarth, Solicitor, Creevey Russell Lawyers, *Proof Committee Hansard*, 27 July 2015, p. 46.

38 Mr Charlie Thomas, NFF, *Proof Committee Hansard*, 28 July 2015, p. 22.

39 Mr Drew Hutton, President, Lock the Gate Alliance, *Proof Committee Hansard*, 27 July 2015, p. 9.

40 Miss Lynette Nicholson, Chairperson, Basin Sustainability Alliance, *Proof Committee Hansard*, 27 July 2015, p. 17.

2.34 Representatives of APPEA, however, argued that coexistence can, and does, occur. APPEA's chief technical officer, Mr Rick Wilkinson, referred to overseas examples to demonstrate this point:

> An overseas example is Texas, which is smaller than New South Wales, smaller than Queensland, which has an agricultural output rate greater than either of those states. Texas has 218,000 onshore wells on agricultural land. The industry has been there for more than a century. Clearly that example from overseas shows that that is the case. Canada is similar to Australia, with the same crown law and so forth. It has exactly the same arrangements.[41]

2.35 Returning to Australia, Mr Wilkinson noted that there are 6,700 CSG wells located near Roma, Chinchilla and Miles in Queensland. Mr Wilkinson argued that these wells are located in 'some of the best agricultural area in Australia' and are 'operating in a very positive way'.[42]

2.36 Mr Ian Thompson from the Department of Agriculture noted that although coexistence does not apply for projects such as open-cut coalmines, the application of the principle is evident in parts of Queensland and New South Wales 'depending on how coal seam gas operations are undertaken and the relationship they have with the farmers involved and the regional community'. He described the overall situation as being a 'mixed picture':

> There are certainly case studies of agriculture flourishing in conjunction with coal seam gas and, I think, there are some examples where the farm sector is saying it has been to its detriment. I think the mining industry has also said that the concerns about accessing land also have impacts on their reputation and possibly the approval processes affect the investments that they can bring into the country.[43]

Role of the Commonwealth in land access issues and unconventional gas

2.37 The Commonwealth's direct role in issues related to coal mining and the extraction of unconventional gas is limited. As the Department of Industry and Science explained, 'state and territory governments have primary responsibility for regulating onshore minerals and petroleum exploration and production, including onshore gas and coal land access arrangements'.[44] Mr Dean Knudson, Department of the Environment, added that land use matters are 'managed principally by the states and territories', with issues around land access 'managed by the individual companies,

41 Mr Rick Wilkinson, Chief Technical Officer, APPEA, *Proof Committee Hansard*, 28 July 2015, p. 52.

42 Mr Rick Wilkinson, APPEA, *Proof Committee Hansard*, 28 July 2015, p. 52.

43 Mr Ian Thompson, First Assistant Secretary, Sustainability and Biosecurity Policy Division, Department of Agriculture, *Proof Committee Hansard*, 28 July 2015, p. 17.

44 Department of Industry and Science, *Submission 31*, pp. 2–3.

who will do outreach on the ground with landowners in an area where they wish to develop a resource'.[45]

2.38 A direct role for the Commonwealth, however, arises under environmental legislation. Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), a person must not take an action that has, will have, or is likely to have a significant impact on any matter of national environmental significance (as defined by the Act) without the approval of the minister administering that Act. The minister may decide that an action:

- is a controlled action because it is likely to have a significant impact;
- is not a controlled action if undertaken in a manner specified; or
- is not a controlled action and therefore does not require approval.[46]

2.39 Included in the nine matters of national environmental significance protected under the EPBC Act are water resources, in relation to coal seam gas and large coal mine developments.[47] Following amendments to the EPBC Act made in 2013, a constitutional corporation, the Commonwealth or a Commonwealth agency commits a criminal offence if they take an action involving coal seam gas or large coal mining development that has, will have, or is likely to have a significant impact on a water resource without an approval or exemption from obtaining an approval under the EPBC Act. Offences also apply to persons who, for the purposes of trade or commerce, engage in this conduct.[48]

2.40 Mr Knudson explained that in regulating water-related impacts from coal or coal seam gas projects, the Department of the Environment:

> …work[s] extensively with states and territories to ensure that any potential impacts on matters of environmental significance are managed in a way that their impacts are limited to those that would be deemed acceptable by the decision maker.[49]

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45 Mr Dean Knudson, First Assistant Secretary, Environment Standards Division, Department of the Environment, *Proof Committee Hansard*, 28 July 2015, p. 2.

46 *Environment Protection and Biodiversity Conservation Act 1999*, ss. 75–77A.

47 The other matters of national environmental significance are: world heritage properties; national heritage places; wetlands of international importance (listed under the Ramsar Convention); listed threatened species and ecological communities; migratory species protected under international agreements; Commonwealth marine areas; the Great Barrier Reef Marine Park; and nuclear actions (including uranium mines). Department of the Environment, *What is protected under the EPBC Act?*, www.environment.gov.au/epbc/what-is-protected (accessed 21 July 2015).

48 *Environment Protection and Biodiversity Conservation Act 1999*, s. 24D.

49 Mr Dean Knudson, Department of the Environment, *Proof Committee Hansard*, 28 July 2015, p. 1.

2.41 Mr Knudsen added that expert advice is relied upon during the decision-making process, including from the Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development (IESC). The IESC was formed in 2012 and provides advice to federal and state regulators 'on what appropriate measures should be put in place to manage either areas where there is uncertainty or residual risk associated with the project'.[50]

2.42 The Australian Government has also taken a leadership role in energy policy, by chairing the COAG Energy Council[51] and by developing and promoting various policies, such as the 2015 Energy White Paper and the Domestic Gas Strategy.[52] The Domestic Gas Strategy, which was released in April 2015, articulates the Australian Government's role, and its expectations of state and territory governments, and industry, in developing unconventional gas.[53] The Strategy contains the following statement:

> The States are primarily responsible for the regulation of onshore gas resources in their jurisdictions, and the Australian Government expects the States to support the development of the unconventional gas industry using strong scientific evidence to underpin any decision.
>
> The benefits of developing a stronger unconventional gas sector should be balanced with managing impacts upon communities, other industries, and the environment and be supported by an evidence-based understanding of risks (for example, impacts on water quality, or trade-offs for land usage).[54]

2.43 The Strategy also outlines the Australian Government's three principles for the development of CSG, which are as follows:

- 'that access to agricultural land should only be done with the farmer's agreement and farmers should be fairly compensated';
- 'there must be no long-term damage to water resources used for agriculture and local communities'; and
- 'that prime agricultural land and quality water resources must not be compromised for future generations'.[55]

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50 Mr Dean Knudson, Department of the Environment, *Proof Committee Hansard*, 28 July 2015, p. 1.

51 The Minister for Industry and Science, currently the Hon Ian Macfarlane MP, chairs the COAG Energy Council.

52 Ms Margaret Sewell, Head of Division, Energy, Department of Industry and Science, *Proof Committee Hansard*, 28 July 2015, p. 13.

53 Department of Industry and Science, *Domestic gas strategy*, 2015, p. 1.

54 Department of Industry and Science, *Domestic gas strategy*, 2015, p. 1.

55 Department of Industry and Science, *Domestic gas strategy*, 2015, p. 2.

2.44 The committee received evidence regarding the work undertaken by the COAG Energy Council in response to, among other things, challenges presented by land use conflicts. Of relevance to the bill being examined by the committee are the Multiple Land Use Framework and the National Harmonised Regulatory Framework for Natural Gas and Coal Seams.[56] Ms Margaret Sewell, Department of Industry and Science, also advised that in December 2014, the COAG Energy Council committed to working with the industry and science agencies:

> …to develop a set of specific actions to promote community confidence and engagement in resources development, with a very strong focus on, in particular, improving local community engagement including through the promotion of leading practice approaches.[57]

2.45 The report returns to issues such as the role of the Commonwealth in the next chapter, where the evidence received about how this bill interacts with matters traditionally considered to be state responsibilities is outlined. The next chapter also examines the evidence received by the committee about the specific proposals in the bill.

56 Officers of the Department of Industry and Science provided an overview of these frameworks and how they were being implemented in various jurisdictions. See *Proof Committee Hansard*, 28 July 2015, pp. 14, 19 and 20.

57 Ms Margaret Sewell, Department of Industry and Science, *Proof Committee Hansard*, 28 July 2015, p. 13.

Chapter 3

Key issues

3.1 The committee received a significant amount of evidence on the specific clauses in the bill that would provide for the proposed landholders' right to refuse access to their land and that would implement a ban on hydraulic fracturing. Another overarching key issue in the evidence received by the committee, however, is whether the Commonwealth actually has a legitimate role in enacting legislation that relates to these matters. In addition to these key issues, stakeholders also highlighted potential drafting issues.

3.2 This chapter considers the bill in detail. The evidence received regarding the proposed landholders' right to refuse access to land is examined first, followed by the evidence received on the proposed hydraulic fracturing ban, the role of the Commonwealth and, finally, the potential drafting issues.

Right to refuse access to land

3.3 The submissions received by the committee commented on the overall merits of the proposed right to refuse access to land and particular issues that this aspect of the bill may present. This section outlines the issues raised.

Overall observations

3.4 Mrs Shay Dougall, the founder of the Hopeland Community Sustainability Group, provided the following heartfelt explanation as to why she supports the right for landholders to refuse gas and coal activities from being undertaken on their land:

> I spend every day and many nights fighting to maintain the line in the sand that this legislation is all about. It is all about what we have already done for ourselves. Hopeland has had a gas-free declaration, which was for our area to remain gas free. We stood up for our own rights. We said no. I want to support the financial, emotional and physical wellbeing of my family, my kids and my community, because the area will be unliveable and a disastrous financial loss to us because of this industry. Even if we did leave, where would we go?…If this legislation does not go through, no-one gets to say no to all of those petroleum leases. There is nowhere to go. This bill is life changing. After years of screaming into pillows, one simple act to uphold human rights by this government will at least level the playing field in this country. If the government will not protect us and help us protect our children, our food and our water security, at least give me and my community the right to protect them for you and the right to refuse gas and coal.[1]

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1 Mrs Shay Dougall, Spokesperson and Founder, Hopeland Community Sustainability Group, *Proof Committee Hansard*, 27 July 2015, p. 22.

3.5 Mr Drew Hutton, President, Lock the Gate Alliance, argued that a right for landholders to refuse gas and coal activities from being undertaken on their land is needed as negotiations between mining companies and farmers are not equal. Mr Hutton characterised such negotiations as occurring 'with a gun at the head of the landowner' as landholders who do not want mining on their land 'simply do not have the right to say no in the long run'.[2]

3.6 The EDOs of Australia submitted that it supports the bill because of various inadequacies in the state regulatory frameworks. The submission stated:

> Significant community concerns exist regarding notification, clear information, and local engagement in decision making processes for coal mining and unconventional gas activities. This includes initial licensing decisions, equity in negotiation of access arrangements, upfront consideration of environmental and social impacts, landholder and community appeal rights, and landholder access to compensation if activities cause damage.[3]

3.7 The EDOs of Australia further argued that it supports intervention by the Commonwealth in landholder rights as, in its view, the issue is 'of national significance in urgent need of national regulation'.[4]

3.8 The National Farmers' Federation (NFF) submitted that it supports 'the principle of requiring a landholder's agreement before extractive industries progress on private farmland'. Mr Charlie Thomas from the NFF explained:

> The NFF's view is that a forced negotiation, where the landholder does not have the option to refuse an agreement, is not an equal or fair negotiation. Fixed outcome negotiation provides an unfair advantage to well-resourced mining and gas companies, which employ skilled professionals to negotiate these types of agreements on a regular basis.[5]

3.9 Despite supporting the principle of landholder agreement, Mr Thomas recognised some limitations with such an approach. For example, Mr Thomas observed that 'a right of veto is no substitute for effective science-based regulatory mechanisms which protect agricultural land and water assets'.[6] Mr Thomas also noted that although there are international jurisdictions that provide landholders with more influence over whether or not minerals can be accessed, these arrangements have 'not

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2 Mr Drew Hutton, President, Lock the Gate Alliance, *Proof Committee Hansard*, 27 July 2015, p. 9.

3 EDOs of Australia, *Submission 33*, p. 3.

4 EDOs of Australia, *Submission 33*, p. 2.

5 Mr Charlie Thomas, General Manager, Agribusiness and Rural Affairs, National Farmers' Federation (NFF), *Proof Committee Hansard*, 28 July 2015, p. 22.

6 Mr Charlie Thomas, NFF, *Proof Committee Hansard*, 28 July 2015, p. 22.

necessarily led to better environmental outcomes'. Mr Thomas concluded that the NFF favours the consideration of:

> …regulatory mechanisms that can actually protect the land and water resources rather than require landholders to make the final determination.[7]

3.10 The NFF also cited various 'shortcomings' in how the bill is drafted as a reason why it does not support the bill.[8] These concerns are examined later in this chapter.

3.11 Although he supported the overall approach taken by the bill and noted that it 'is certainly a very strong way' of dealing with the issues facing landholders, Mr Leslie Manning from p&e Law noted that the bill was not the only way forward:

> There are things like disclosing greater information, disclosing more relevant information and entering agreements that say the company has to describe the impacts on this farm in exact detail so that any impact outside of that means a fresh claim for compensation. That can be done to incrementally improve it.[9]

3.12 Industry stakeholders did not support the proposed landholders' right to refuse access to resources. The following statement from the Australian Petroleum Production and Exploration Association (APPEA) is an example of the types of arguments that were presented to the committee by these stakeholders:

> There is no systemic issue that requires the Australian Government to take regulatory action and override State laws. There is ample evidence showing that farming and gas extraction can and does co-exist through responsible cooperation – and this is already demonstrated by the vast majority of oil and gas operations across the country.[10]

3.13 Industry submitters that oppose the bill also raised several specific issues, such as how the bill would interact with existing state frameworks and how various terms or concepts in the bill would be interpreted. Supporters, opponents and other interested parties gave evidence that provided various insights into these issues, which the following paragraphs discuss.

Interaction with existing state frameworks

3.14 Ms Kate Galloway argued that in the competition between a landowner's rights and a miner's rights, the existing state legislative frameworks favour the miner's rights. Regarding the Queensland framework that provides for conduct and compensation agreements, Ms Galloway argued that the bill would address the

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7 Mr Charlie Thomas, NFF, *Proof Committee Hansard*, 28 July 2015, p. 29.

8 Mr Charlie Thomas, NFF, *Proof Committee Hansard*, 28 July 2015, p. 22.

9 Mr Leslie Manning, Director, p&e Law, *Proof Committee Hansard*, 27 July 2015, p. 42.

10 Australian Petroleum Production and Exploration Association (APPEA), *Submission 21*, p. 1.

'differential power between the parties however potentially leaves landholders open to political and financial pressure'. Ms Galloway suggested that the current compensation arrangements under state legislation 'represents a form of distributive justice', but fail 'to address the underlying competition between property interests'.[11] Ms Galloway concluded:

> Both the purpose and the method of the Bill uphold the extent and nature of the landholding interest against the competing mining interest. The Bill affords priority to landholders' prior and more extensive interest, over the lesser mining interest that remains derivative of the State. In doing so, it upholds private property interests, but it leaves in place the State legislation that allows for distributive justice through compensation if the landowner chooses to consent.
>
> The Bill therefore supports private property interests and is thus a better reflection of the property norms that are generally accepted to form the foundation of Australian landholding systems.[12]

3.15 p&e Law criticised the current Queensland legislation that requires conduct and compensation agreements. p&e Law suggested that the use of the term 'agreement' in the Queensland legislation 'is a misnomer'. It argued:

> An agreement in relation to land would normally be reached by an owner wishing to sell an interest and a purchaser wishing to buy an interest. Both the owner and purchaser have relatively equal access to information and knowledge. Either party can decide not to proceed.
>
> If as a consequence of negotiations under petroleum and mining legislation no agreement is reached, mining companies can take court action to determine the terms upon which they can enter land and conduct advanced activities. A landholder is compelled to allow access. In other areas of law relating to contracts a person entering into a contract as a result of 'compulsion' can have the contract set aside.[13]

3.16 Other organisations, however, argued that the state frameworks are effective. For example, APPEA submitted that 'land access can be and is being successfully managed', as shown by the 'thousands of land access agreements and compensation arrangements' between petroleum companies and farmers.[14]

3.17 Non-statutory resolutions to land use conflicts were also highlighted, with the committee informed that agreements regarding principles for land access have been entered into between certain CSG companies and agricultural organisations. AGL Energy submitted that in March 2014, it signed an Agreed Principles of Land

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11 Ms Kate Galloway, *Submission 10*, pp. 2–3.

12 Ms Kate Galloway, *Submission 10*, p. 3.

13 p&e Law, *Submission 24*, p. 2.

14 APPEA, *Submission 21*, p. 1. APPEA noted that 'over 4,700 landholder access agreements have been successfully negotiated in Queensland alone'.

Access with Santos, NSW Farmers Association, Cotton Australia and the NSW Irrigators Council. AGL stated that these principles reconfirm 'that we will respect the wishes of landholders regarding any exploration and production operations that take place on their land, meaning that landholders are free to say "yes" or "no".'[15] AGL added that it has 'never accessed a person's land without their explicit permission or exercised arbitration rights available under law for CSG exploration or production'. AGL stated that it:

> …is therefore confident that landholders will only sign access agreements with us that are considered by them to be fair and reasonable, and are in their commercial interests. Often landholders will value the diversification of revenue streams for their property and the stable and predictable payments that arise from hosting gas activities, which are not dependent on weather or other seasonal variances.[16]

3.18 Some submitters questioned how the state frameworks could operate if the bill is enacted. Professor Hepburn, for example, argued that the bill would conflict with state laws for access and compensation and the state licensing laws. In particular, Professor Hepburn suggested that 'it is difficult to see how state laws that seek to regulate the terms and conditions of access entitlements are to function' if a private landholder can veto access to the land. She added that the 'detailed regimes' for dealing with resource title holders' notification, compensation and conduct obligations 'will become redundant'.[17] Further, Professor Hepburn suggested that the bill would undermine the states' licensing frameworks. She argued:

> It is simply not possible for a state department to approve authorised activities within a license and then have those activities overruled by a landholder refusing to authorise access and/or subject to a civil penalty should the resource title holder ignore this refusal. This would create licensing chaos and generate unfair differences between licences issued pre the implementation of the Bill (which would not be subject to a right of veto) and licences issued after the implementation of the Bill (which would be).[18]

3.19 Mr Thomas from the NFF queried whether the agreements specified under state legislation, such as Queensland's conduct and compensation agreements, would constitute the written authorisation required by clause 12 of the bill. Mr Thomas stated that if the state agreements satisfied the requirements of clause 12, then 'the right to refuse provisions under division 1 of this bill would be rendered redundant'.[19]

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15 AGL Energy, *Submission 25*, p. 1. Similarly, WAFarmers advised that it, VegetablesWA and APPEA are in the process of finalising a Land Access Agreement. See *Submission 29*, p. 2.

16 AGL Energy, *Submission 25*, p. 1.

17 Professor Samantha Hepburn, *Submission 86*, p. 10.

18 Professor Samantha Hepburn, *Submission 86*, p. 11.

19 Mr Charlie Thomas, NFF, *Proof Committee Hansard*, 28 July 2015, p. 22.

'Ownership interest', dispute resolution and compensation

3.20 Mining and petroleum companies and their representative organisations argued that the bill would be unworkable because of the definition of 'ownership interest', which is defined in the bill as a person who has a legal or equitable interest in the land or a right to occupy it.[20] This is a key concept in the bill as a person with an ownership interest in the land can bring action if they have not given written authorisation for the activities referred to in the bill to take place.

3.21 It was argued that the scope of 'ownership interest' is too broad. The Minerals Council of Australia (MCA) argued that the definition does not align with definitions of 'ownership' or 'landholder' used by the states. Accordingly, the MCA argued that the definition 'is highly problematic as it extends protection to a broad group of persons, well beyond the occupier of the land'.[21] The MCA argued:

> This would create an impossible situation for companies, as these other interest holders are not listed in mainstream land ownership registers and would therefore be very difficult to identify.[22]

3.22 The MCA also noted that the bill 'is silent on the matter of compensation'. The MCA suggested that to obtain a written authorisation, it is likely that a company will be required to negotiate compensation with every person with an ownership interest. The MCA suggested that this would consume company time and resources, and could lead to cumulative compensation costs that were high enough to stop projects.[23]

3.23 The MCA also noted that the bill does not provide a dispute resolution process or a statutory timeframe within which an agreement on written authorisation needs to be reached. As a result, the MCA argued that the bill provides an 'absolute veto' over a project for any person with an ownership interest.[24] The MCA suggested that the definition of ownership interest would mean the process 'will be open to abuse', as:

- parties could seek unreasonable amounts of compensation; and

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20 Subclause 5(1).

21 The MCA considered the definition could include: holders of freehold land, holders of Crown leasehold, a beneficiary's interest in land under a fixed trust, the interest a purchaser has after a valid contract of sale of land is entered into but before the land is transferred, mortgagees of property, an easement which is agreed in a registrable form but is not registered, an interest in land where an errant fiduciary purchases property with money obtained in breach of their fiduciary obligation, and situations where a person contributes to the purchase of land and are not a registered proprietor, as equity will recognise their interest in the form of a constructive trust. Minerals Council of Australia, *Submission 41*, pp. 5–6.

22 Minerals Council of Australia, *Submission 41*, p. 6.

23 Minerals Council of Australia, *Submission 41*, p. 6.

24 Minerals Council of Australia, *Submission 41*, p. 6.

- parties that object to the coal industry could 'seek derivate rights over land and use their veto to ensure projects do not proceed'.[25]

3.24 A further issue raised by the MCA is that the bill 'does not make provision for prior written authorisation to bind a successor entitled to the land'. The MCA argued that it appears the requirement to obtain written authorisation from any of the parties with an ownership interest would be triggered every time a change in the holder of the ownership interest occurred.[26]

3.25 Creevey Russell Lawyers noted that the definition used in the bill is broader than the definition of 'landholder' used in Queensland law. Although subclause 10(3) provides that the corporation would not commit an offence by entering land for a gas or coal mining activity or engaging in such an activity if they have prior written authorisation, the note to subclause 10(3) provides that the defendant (the corporation) bears an evidential burden to show that they had prior written authorisation. Creevey Russell Lawyers observed that:

> …people with an equitable interest in land may be impossible for a tenement holder to identify prior to commencing activities. There is therefore a high risk of tenement holders breaching clause 10(3) despite their best efforts to comply.[27]

3.26 Further, Creevey Russell Lawyers suggested that people who have an ownership interest (as defined by the bill) but who are not eligible for compensation or to be a party to negotiations under the state legislation would likely 'refuse consent to all activities on principle'. In instances where the landholder wanted to negotiate an agreement under state law 'the interference of these other people with an "ownership interest" as defined in the bill could deny landholders that opportunity'.[28]

3.27 The NFF also noted that the broad definition of ownership interest 'would be difficult to administer and would…not sit well with the existing requirements under state and territory legislation'.[29]

3.28 Some submitters, however, argued that the scope of the bill should be broadened further. The Latrobe Valley Sustainability Group argued that communities should be given the right to veto unconventional gas activities as 'CSG affects whole communities, not just individual landholders'.[30]

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25 Minerals Council of Australia, *Submission 41*, p. 6.

26 Ms Kirsten Livermore, Acting Director, Health, Safety, Environment and Communities, Minerals Council of Australia, *Proof Committee Hansard*, 28 July 2015, p. 43.

27 Creevey Russell Lawyers, *Submission 18*, p. 2.

28 Creevey Russell Lawyers, *Submission 18*, p. 2.

29 Mr Charlie Thomas, NFF, *Proof Committee Hansard*, 28 July 2015, p. 22.

30 Latrobe Valley Sustainability Group, *Submission 36*, p. 2.

Native title

3.29 Ms Kate Galloway argued that under the bill, the status of undeclared native title interests is unclear. Ms Galloway explained:

> The source of native title lies in customary law, potentially recognised by common law through statutory process. Once native title is determined, it is likely to have the status of a legal interest in land as it is recognised pursuant to the law. But before native title is determined, its status as a legal or equitable interest in land is less certain. Whether or not traditional owner groups have lodged a native title claim (that is yet to be determined) they may have a right to negotiate in respect of mining activity, which is a future act under the *Native Title Act 1993* (Cth). Further, such groups may enter into an Indigenous Land Use Agreement, which may afford rights to the group. While the right to negotiate is a right afforded by law, its status as a 'legal or equitable interest in land' is uncertain—it reflects connection with land, it is a right afforded by law, but it is not strictly a legal interest in land.[31]

3.30 Ms Galloway argued that the bill should be amended to specifically include 'native title rights and interests within its scope'.[32]

3.31 Another issue raised in relation to native title was put forward by QGC. QGC objected to a statement made in the sponsoring senator's second reading speech about native title holders being excluded from decisions about activities on land. QGC submitted that the statement in question 'is incorrect':

> QGC has eight registered Indigenous Land Use Agreements across our footprint which are managed and implemented in close consultation with claimants and native title holders. Native Title is protected and governed under distinct legislation, the *Native Title Act 1993*. This Act protects native title holders and ensures that all industries are obliged to undertake activities with consideration of traditional owners.[33]

Requirement for an independent assessment

3.32 The bill would require that prior written authorisation must contain certain information including, among other things, 'an independent assessment of the current and future risks associated with the proposed gas or coal mining activity on, or affecting, the land and any associated groundwater systems'.[34]

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31 Ms Kate Galloway, *Submission 10*, pp. 1–2.

32 Ms Kate Galloway, *Submission 10*, pp. 1–2.

33 QGC, *Submission 22*, p. 3.

34 Subclause 12(2).

3.33 Although he was not commenting on the specific independent assessment requirement in the bill, the evidence given by Mr Drew Hutton about the information that accompanies project applications appears to be relevant to this aspect of the bill. Mr Hutton argued that amount of information that accompanies project applications is 'quite often' minimal. Mr Hutton stated:

> If you look, for example, at the applications by Santos and BG and Origin here in Queensland for their projects, with the first two in particular, there is virtually no substantial evidence to back their claims about water. There is almost nothing on water modelling and nothing on how they will mitigate the impacts of their activities on underground water in particular.[35]

3.34 Dr Matthew Currell, a lecturer of hydrogeology and environmental engineering at RMIT University, wrote that the independent assessment requirement 'is a welcome idea'. However, he noted that questions may arise regarding the level of detail required in the independent assessments. On this matter, Dr Currell commented:

> In my experience, assessments of this nature commissioned by mining companies often include lengthy 'desktop' studies of the hydrogeology of a region, but the scale may be inappropriate (too large or too small) and they typically do not include adequate resources and time to install new groundwater monitoring wells and other infrastructure, so that baseline conditions can be comprehensively documented. This is vital so that any modelling predictions about the impacts of mining can be conducted with a high level of confidence. Numerous examples of problems in predicting impacts due to inadequate monitoring data can be seen in cases referred to the Independent Expert Scientific Committee on Large Coal Mining and Coal Seam Gas.[36]

3.35 Dr Currell suggested that the bill could be amended to prevent this issue.[37] He also argued that these assessments should include surface water, as well as groundwater systems.[38]

3.36 There is some uncertainty as to whether existing environmental assessments would meet the test proposed by the bill. Mr Dean Knudson of the Department of the Environment explained that 'it is a bit of a question of speculation' as to whether environmental assessments undertaken by the department would satisfy the bill's requirement. Nevertheless, he argued that 'an environmental assessment that is

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35 Mr Drew Hutton, Lock the Gate Alliance, *Proof Committee Hansard*, 27 July 2015, p. 9.

36 Dr Matthew Currell, *Submission 11*, p. 2.

37 Dr Currell suggested the bill could stipulate 'some minimum requirements of the groundwater assessment, which include drilling an adequate number of groundwater monitoring wells and collecting data from these for a baseline period prior to any further activity being conducted'. Dr Matthew Currell, *Submission 11*, p. 2.

38 Dr Currell stated that surface water 'can frequently be put at risk during coal and gas mining' and 'is typically in connection with groundwater and interacts with it extensively'. Dr Matthew Currell, *Submission 11*, p. 1.

undertaken under the EPBC Act, for example, is self-funded by the proponent and does have that rigour…that provides us with the substantiation we need to make an approval decision'.[39]

Ban on hydraulic fracturing

3.37 This section outlines the arguments in support of, and against, the introduction of a ban on hydraulic fracturing.

Arguments in support of a ban

3.38 Arguments in favour of a ban on hydraulic fracturing were based on environmental and health concerns. Several submissions that supported a ban on fracking pointed to the moratoriums that are in place in Australia (in Tasmania and Victoria)[40] and the bans and moratoriums in place overseas.[41] For example, Dr Emma Carmody from EDO New South Wales stated:

> The proposal to ban fracking is hardly a radical one when you consider it at an international level. There is precedent. For example, there are moratoriums in place in France, Scotland and Germany. These countries have other leading practice environmental laws. So I do not think Australia would be going out on a limb if it decided at the national level to ban this practice.[42]

3.39 Submitters argued that there is a need to better understand the long-term environment effects associated with hydraulic fracturing. Dr Matthew Currell highlighted potential pollution risks associated with various aspects of hydraulic fracturing operations. Dr Currell submitted that:

> Since 2010, a growing body of research has been carried out worldwide (particularly in the United States) to understand the impacts to the environment and human health associated with unconventional gas. Major risks from hydraulic fracturing to groundwater and surface water include:
>
> (a) Risk of increasing stray or 'fugitive' gas into shallow aquifers and/or the near surface atmosphere.

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39 Mr Dean Knudson, First Assistant Secretary, Environment Standards Division, Department of the Environment, *Proof Committee Hansard*, 28 July 2015, p. 10.

40 EDOs of Australia, *Submission 33*, p. 9.

41 The committee was informed that bans or moratoriums are in place in certain European countries (Bulgaria, France, Germany, the Netherlands, Scotland and Wales and in parts of Spain and Switzerland), in parts of Canada (Quebec, Nova Scotia and Newfoundland), and in parts of the United States of America (New York State, Vermont and Washington DC, and parts of California, Colorado, Delaware, Hawaii and Texas). NSW Young Lawyers, *Submission 32*, p. 3.

42 Dr Emma Carmody, Policy and Law Reform Solicitor, Environmental Defenders Office New South Wales (EDO NSW), *Proof Committee Hansard*, 27 July 2015, p. 7.

(b) Risk of increasing pathways and connections for fluids (including potential contaminants) to travel between different geological layers, potentially into important groundwater or surface water bodies.

(c) Pollution risks associated with 'flow-back' or 'produced' water that is generated during hydraulic fracturing and/or gas well development (note that 'produced' waste water is generated from coal seam gas mining regardless of whether hydraulic fracturing is employed or not, and is a pollution risk in most unconventional gas developments).[43]

3.40 Dr Currell concluded:

> On balance, my opinion is that there are grounds for seriously considering enacting such as ban, because there are major potential risks to the environment and human health associated with hydraulic fracturing, and unconventional gas extraction more generally (regardless of whether it involves hydraulic fracturing or not).[44]

3.41 Submitters argued that hydraulic fracturing should be banned while there was uncertainty about the risks involved.[45] The EDOs of Australia argued that, 'at a minimum', a moratorium on hydraulic fracturing should be implemented nationally 'until such time as the significant list of knowledge gaps highlighted in reports and peer-reviewed literature have been properly addressed'.[46] NSW Young Lawyers highlighted the 'precautionary principle' to similarly argue that a ban on hydraulic fracturing would be 'a proportionate response to the serious threats which have been recognised in relation to that practice'. NSW Young Lawyers submitted:

> Scientists have long cautioned that the process of blasting sand, water and chemicals into coal seams or shale formations in order to release trapped gas could lead to irreversible and severe environmental damage and so warrants a precautionary approach. The precautionary principle is a cardinal element of the overarching concept of ecologically sustainable development that informs environmental law. The principle holds that '[w]here there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation'…Given the potential serious impacts of hydraulic fracturing on Australia's aquifer systems, including the Great Artesian Basin, a halt on the practice is appropriate, at least until it is proven to be safe.[47]

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43 Dr Matthew Currell, *Submission 11*, p. 2. Dr Currell listed examples of problematic instances of the treatment and disposal of flow-back water: see *Submission 11*, p. 8.

44 Dr Matthew Currell, *Submission 11*, p. 1.

45 See Mrs Allison Wharley, *Submission 9*, p. 2; Livestock SA, *Submission 20*, p. 3.

46 EDOs of Australia, *Submission 33*, p. 9.

47 NSW Young Lawyers, *Submission 32*, p. 3.

3.42 Mr Drew Hutton, the President of the Lock the Gate Alliance, told the committee that most of the monitoring work that is currently undertaken on the effect that CSG activities have on water 'is done on a complaints basis, not on a proactive basis'. Although there is 'now some monitoring going on with regard to water and the impacts on water', he observed that 'because the timeline on this goes for decades, not for a couple of years, it is very difficult to predict with any great certainty what is likely to happen in the years ahead'. As a result, he questioned whether it is possible for the make good agreements for water that are required under Queensland law to 'be effective in the years ahead'.[48]

3.43 Witnesses also questioned the effectiveness of the current state regulatory frameworks for hydraulic fracturing. For example, although the use of BTEX chemicals (benzene, toluene, ethylbenzene and xylene) in hydraulic fracturing has been banned by the states where hydraulic fracturing is undertaken and in the Northern Territory, the EDOs of Australia expressed its concern that the New South Wales ban is not enforced under legislation and '[c]onsequently, it could be reversed without parliamentary scrutiny.[49]

3.44 Dr Emma Carmody from EDO New South Wales explained that hydraulic fracturing is regulated by 'a set of piecemeal laws and policies'. Dr Carmody outlined her organisation's concerns about this as follows:

> For example, we have a code of practice for fracture stimulation, which some people have argued is perhaps best practice in Australia. That may be true; however, it is not linked to any specific piece of legislation and, to that extent, its implementation is not mandatory, which we think is problematic. At a legislative level, most CSG production will be considered what is called the state significant development under the Environmental Planning and Assessment Act. For state significant development, the minister has broad discretion to determine how the likely environmental impacts of a project are assessed and then to determine whether or not the project will be approved. We consider that that is problematic because the legislation is not prescriptive enough or detailed enough, requiring the minister to take into account specific elements.[50]

48 Mr Drew Hutton, Lock the Gate Alliance, *Proof Committee Hansard*, 27 July 2015, p. 10.

49 EDOs of Australia, *Submission 33*, p. 8.

50 Dr Emma Carmody, EDO NSW, *Proof Committee Hansard*, 27 July 2015, pp. 5–6.

Arguments against a ban

3.45 The Department of Industry and Science submitted that fracking is used in approximately 20–40 per cent of Australia's CSG wells, and has been successfully used in Australia for over 40 years.[51] The department concluded that:

> …this experience suggests the technical risks can be managed through a well-designed regulatory regime, underpinned by effective monitoring and enforcement of compliance where activities are permitted. Unconventional gas operations are regulated by international standards, national and state legislations, guidelines and codes of practice.[52]

3.46 The Department of Agriculture advised that it did not support the proposed legislative ban on fracking. The department provided the following explanation of its position:

> While regulators must ensure that hydraulic fracturing operations are carefully planned, operated and monitored, scientific evidence confirms that hydraulic fracturing can be undertaken without causing long-term damage to natural resources. Community confidence in shale and coal seam gas extraction will be improved by monitoring the impact of hydraulic fracturing activities on local environments, including water resources.[53]

3.47 Mr Ian Thompson, Department of Agriculture, explained that the department would prefer not to have a blanket ban on fracking as it is focused on regulating outcomes, rather than particular techniques. Mr Thompson made the following observations:

> Hydraulic fracturing has been occurring in the gas industry for many, many years. Depending on the chemicals used and how it is applied, there can be some risks associated with that. Some of the worst chemicals that can be used and have been used in some instances are not permitted in Australia, from my understanding, so that risk is minimised. Fracking in the gas industry that is subject to appropriate controls and monitoring can continue. We are not in the business of making choices about how companies do their business. It is what outcome is achieved. Through the work of the states to look after groundwater and surface water, they are examining the impacts of fracking on water resources. So we would prefer not to have a blanket ban.[54]

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51 Department of Industry and Science, *Submission 31*, p. 5. See also APPEA, *Submission 21*, p. 10; South Australian Chamber of Mines and Energy (SACOME), *Submission 23*, p. 4.

52 Department of Industry and Science, *Submission 31*, p. 5.

53 Department of Agriculture, *Submission 26*, p. 3.

54 Mr Ian Thompson, First Assistant Secretary, Sustainability and Biosecurity Policy Division, Department of Agriculture, *Proof Committee Hansard*, 28 July 2015, pp. 18–19.

3.48 Further, the Department of Industry and Science stated that it:

- is concerned that 'community concerns have been exacerbated by lack of accessible information on the nature of the activities being undertaken, existing regulatory protections, and responses underway at all levels of government';
- considers 'there is unnecessary confusion' about CSG and shale gas, and that 'international experiences of best practice can help inform Australia's regulatory frameworks'; and
- considers the 'goal of achieving mutually beneficial outcomes has been complicated by hydraulic fracturing or "fracking" becoming an unnecessarily emotive topic'.[55]

3.49 Submitters also argued that misinformation about fracking is widespread.[56] APPEA argued that the proposed ban is 'not based on science or evidence and therefore should be rejected'. APPEA submitted that:

> The Australian Government, every state and the Northern Territory have undertaken reviews of unconventional gas, hydraulic fracturing or both. Every scientific and government review in Australia has so far reached the same conclusion—with a robust regulatory regime in place, the environmental risks associated with onshore gas operations, including hydraulic fracturing, can be managed effectively.[57]

3.50 The Petroleum Exploration Society of Australia wrote that 'the risk of fracture propagation leading to fracture stimulation fluids contaminating shallow aquifers is negligible'. It explained:

> The small volumes of chemical that remain in the fracture stimulated reservoirs cannot realistically migrate upwards to aquifers (used by people and industries) from the fracture stimulated intervals due to many overlying natural aquitards and low permeability rocks adjacent to, but unaffected by the fracture stimulation. Hence, the small volumes of chemicals pumped into, and not flowed back from fracture stimulated intervals are expected to remain in the fracture stimulated petroleum reservoirs indefinitely. It is worth remembering that after the initial hydraulic fracturing the producing formation may be dewatered, that is formation water is pumped to the surface. This results in a lower formation pressure allowing gas contained in cleats and micro-fractures in the coal or tight sand/shale to flow into the fractures produced by hydraulic fracturing then into the well bore and finally to the surface. The important point is that the producing interval is

55 Department of Industry and Science, *Submission 31*, p. 5.

56 For example, WAFarmers submitted 'there is a significant volume of misinformation used to manipulate public perception. This information is usually based on the hydraulic fracturing processes or historical information from [the] USA, with no relevance to Australia, or Western Australia'. WAFarmers, *Submission 29*, p. 1.

57 APPEA, *Submission 21*, p. 3.

> now at a lower pressure than the surrounding rocks so that any contained fluids in the surrounding rocks and in communication with the producing horizon will flow back towards the producing horizon and well bore.[58]

3.51 The Northern Territory Government argued that the industry 'has shown itself to be sensitive to public concerns about chemicals used in hydraulic fracturing fluids and has responded by using, where possible, compounds that will have minimum impacts'.[59]

3.52 Finally, APPEA cited a report by the New South Wales Chief Scientist and Engineer, which observed that all industries 'have risks and, like any other, it is inevitable that the CSG industry will have some unintended consequences, including as the result of accidents, human error, and natural disaster'. The report concluded that the most appropriate response to this risk is that industry, governments and the community should 'work together to plan adequately to mitigate such risks, and be prepared to respond to problems if they occur'.[60]

Role of the Commonwealth

3.53 As this report has outlined, the states have primary responsibility for land access matters and for regulating onshore minerals and petroleum exploration and production. Despite the firmly put and well-articulated arguments for or against the introduction of a landholders' right to refuse gas or coal activities and the introduction of a ban on hydraulic fracturing, it is necessary to consider whether it is appropriate for the Commonwealth to be involved in these matters at all. This section considers the evidence received about the role of the Commonwealth with respect to the matters the bill seeks to address.

Arguments in favour

3.54 In support of Commonwealth involvement, some submitters argued that state and territory legislatures have failed to deal with the issues addressed by the bill, and that intervention by the Commonwealth is, therefore, appropriate. For example, the EDOs of Australia argued that the issues related to access to land and fracking 'have generated significant community concern across many Australian jurisdictions, in part due to the inadequacy of state and territory laws'. As a result, the EDOs of Australia argued that these matters are 'therefore issues of national significance in urgent need of national regulation'.[61]

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58 Petroleum Exploration Society of Australia, *Submission 30*, p. 6.

59 Northern Territory Department of Mines and Energy, *Submission 16*, p. 2.

60 New South Wales Chief Scientist & Engineer, *Final Report of the Independent Review of Coal Seam Gas Activities in NSW*, September 2014, pp. 9–11; cited in APPEA, *Submission 21*, p. 13.

61 EDOs of Australia, *Submission 33*, p. 2.

3.55 The Lock the Gate Alliance similarly submitted that the 'consistent failure of the state legislatures…has necessitated this kind of legislative proposal' at the Commonwealth level. The Lock the Gate Alliance added:

> …although we believe that the power of veto should properly sit with the states…[t]he obvious conflict of interest between state royalty income on one hand and the states' duty to regulate to protect the environment and community on the other, renders it unlikely that states will ever uniformly provide veto rights for landholders.[62]

3.56 Further, the Lock the Gate Alliance argued that water resources 'of continental scale and significance, such as the Great Artesian Basin' should be conserved by the Commonwealth as 'the states, local governments and individual landholders and companies cannot be expected to take a broad perspective on their own use of such a resource'.[63]

Arguments against

3.57 Submissions that argued against the use of the corporations power generally focused on the idea of the Commonwealth legislating in a way that affects the ability of the states and territories to recover Crown property and whether the bill is an appropriate use of the Commonwealth's constitutional powers. How the bill would interact with existing state law was also questioned.

3.58 Professor Samantha Hepburn argued that as state governments retain control over, and the power to regulate, the resources in their jurisdictions, 'it would appear to be beyond the constitutional mandate' of the Commonwealth to 'expressly override state legislation that confers access entitlements upon the holders of resource titles'.[64] To illustrate her argument, Professor Hepburn referred to section 6 of the *Petroleum (Onshore) Act 1991* (NSW), which she described as a 'powerful' provision:

> …[Section 6] makes it very clear that all petroleum existing in a natural state below the surface of any land is the property of the Crown and is taken to have always been so. It is actually retrospective.
>
> The states have ownership and ownership carries responsibility. So the states should be responsible for implementing a coordinated access regime that supports and does not undermine private landholder rights and that engages private landholders effectively…I think that that responsibility should not go to the Commonwealth because it would create a chaotic situation.[65]

62 Lock the Gate Alliance, *Submission 19*, p. 1.

63 Lock the Gate Alliance, *Submission 19*, p. 2.

64 Professor Samantha Hepburn, *Submission 86*, p. 7.

65 Professor Samantha Hepburn, *Proof Committee Hansard*, 28 July 2015, p. 38.

3.59 Australian government departments, state and territory governments, the NFF and peak petroleum industry bodies opposed the approach taken by the bill. For example, the Northern Territory Government submitted that the bill 'would represent an unacceptable intrusion on matters that are rightly the purview of the Territory Government'.[66] APPEA argued that there 'is no systemic issue that requires the Australian Government to take regulatory action and override state laws'.[67]

3.60 The Department of Agriculture provided the following statement that explained why it does not support the bill:

> The Bill is not an appropriate use of the Commonwealth's constitutional powers. While the department supports better land access arrangements for landholders, we believe that this should be progressed at a state level. Creating strong relationships between landholders and gas companies will not only help to address many concerns of agricultural stakeholders, but also promote responsible development of gas resources in a way that can benefit regional communities.[68]

3.61 The department added:

> The Australian Government has limited involvement in land access matters. While some work has been progressed on land access principles, the Australian Government cannot bind the states and territories to a resolution on land access. Improvements to land access arrangements should be pursued at a state and territory level.[69]

3.62 The South Australian Government questioned whether the bill would be constitutionally valid if enacted into law. The South Australian Government explained that, although there are laws in its jurisdiction that enable landholders to object to unreasonable access and provide compensation for any economic loss, 'there is no law in South Australia or Australia, constitutional or otherwise that would preclude responsible development in the public interest'. The South Australian Government questioned whether the bill would be consistent with the head of power under paragraph 51(xx) of the Constitution, 'under which the bill would purportedly be enacted'.[70]

3.63 The NFF, which 'supports the principle of requiring a landholder's agreement before extractive industries progress on private farmland', nevertheless argued that this principle should be introduced at the state level. Mr Charlie Thomas from the NFF stated:

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66 Northern Territory Department of Mines and Energy, *Submission 16*, p. 1.

67 APPEA, *Submission 21*, p. 1.

68 Department of Agriculture, *Submission 26*, p. 1.

69 Department of Agriculture, *Submission 26*, p. 1.

70 South Australian Government, *Submission 88*, p. 3.

> State and territory provisions are not perfect, but given the significant body of regulation that applies to this process at the state and territory level, it is unnecessary for the Commonwealth to also seek to regulate relations between landholders and resource companies as this bill seeks to do. Current state and territory provisions already outline the requirements of an access agreement with greater sophistication than what is proposed in the landholders' rights to refuse bill. It is the NFF's view that existing state and territory legislation provides a superior starting point for strengthening landholders' rights than this proposed Commonwealth intervention.[71]

3.64 Submitters also questioned whether the bill:

- amounted to 'an effective transfer of property rights from the Crown to select private landholders';[72]
- would limit the ability of the states and territories to extract their resources, thereby limiting the benefits to the community that arise from Crown ownership;[73]
- would have financial and economic impacts for states and the Commonwealth;[74]
- would provide a precedent for other Commonwealth action regarding other private sector land uses, such as road or rail projects;[75] and
- has the potential to result in 'a marked increase in acquisitions of agricultural land by government and resource companies, with a consequential reduction in the productive use of the acquired land'.[76]

3.65 Further, the Northern Territory Government commented specifically on the suggestion in the sponsoring senator's second reading speech that governments could acquire land on just terms. The Northern Territory Government argued that this proposal would be 'undesirable and impractical because it would impact significantly on state and territory budgets, and potentially remove primary producer families whose ongoing stewardship of the land is essential to its productivity'.[77]

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71 Mr Charlie Thomas, NFF, *Proof Committee Hansard*, 28 July 2015, p. 22.

72 QGC, *Submission 22*, p. 2. See also NFF, *Submission 28*, p. 1; South Australian Government, *Submission 88*, p. 3.

73 APPEA, *Submission 21*, p. 2.

74 QGC, *Submission 22*, p. 2.

75 QGC, *Submission 22*, p. 2.

76 QGC, *Submission 22*, p. 2.

77 Northern Territory Department of Mines and Energy, *Submission 16*, p. 1.

3.66 The Department of Industry and Science and the South Australian Chamber of Mines and Energy (SACOME) suggested that any concerns regarding matters of land access could be addressed by agreement between the states and territories.[78] SACOME submitted that the appropriate forum would be the COAG Energy Council, which it argued could 'assess legislation in each jurisdiction against best practice regulatory frameworks'.[79]

3.67 The NFF similarly suggested that the Commonwealth could facilitate discussions and otherwise encourage states to adopt best practice regulatory frameworks. Mr Thomas from the NFF highlighted aspects of the New South Wales framework that could be improved upon and then replicated elsewhere:

> The New South Wales government…through its process of the strategic agricultural land framework, has attempted to define areas where there is further regulatory prescription and assessment prior to these kinds of developments taking place. We think that a model like that—albeit an improved model, because we realise there are flaws in that model as well—could be taken up by other states and implemented across the board. There could be a role for the Commonwealth in facilitating some of those discussions and encouraging states to adopt best practice, based on what has been successful elsewhere.[80]

Potential drafting issues and areas of uncertainty

3.68 Regardless of whether they supported or opposed the bill, various submitters commented on the drafting of specific clauses. The following paragraphs outline these comments.

Resources covered by the bill

3.69 A key term in the bill is 'gas or coal', as the bill proposes that gas or coal mining activities undertaken without prior written authorisation from landholders would be unlawful. Clause 4 defines 'gas or coal' as meaning coal, CSG, shale gas and tight gas. Similarly, the proposed ban on hydraulic fracturing is defined by reference to the recovery (or the potential or enhanced recovery) of CSG, shale gas or tight gas.[81]

3.70 Submitters questioned the rationale behind the limited application of the bill to specific resources. For example, in relation to the proposed ban on hydraulic fracturing, SACOME argued that the proposed ban 'is not based on any logical reasoning when the bill continues to allow hydraulic fracturing for geothermal energy

78 SACOME, *Submission 23*, p. 2; Department of Industry and Science, *Submission 31*, p. 1.

79 SACOME, *Submission 23*, p. 2.

80 Mr Charlie Thomas, NFF, *Proof Committee Hansard*, 28 July 2015, p. 23.

81 See Clauses 4 and 14.

and tight or shale oil'. It concluded that the proposed ban is 'in effect a direct ban on the extraction of natural gas'.[82]

3.71 Dr Matthew Currell suggested that shale oil, which is not mentioned in the bill, may be a significant resource in Australia. He advised that the extraction of shale oil 'also generally requires hydraulic fracturing' and may therefore be associated with the similar risks considered to apply to CSG extraction.[83]

3.72 Creevey Russell Lawyers suggested that, should the bill be passed in its current form, landholders would not be able to refuse activities relating to petroleum, geothermal energy and greenhouse gas storage. Creevey Russell Lawyers noted that this is despite those activities involving similar technologies, posing similar risks to land and water, and being regulated under the same legislation as CSG in Queensland.

3.73 Ms Laura Hogarth, a solicitor at Creevey Russell Lawyers, remarked that the distinction between the resources covered by the bill and other petroleum activities 'does not make sense to me'. Ms Hogarth added:

> I think petroleum activities would have the same impacts that CSG activities would have. You are still drilling. You still have gathering lines—pipelines buried in a grid network throughout the property. I assume you would have a similar amount of access, as in frequency of drilling rigs returning to the land every year or two to work over the wells. I think it would have all the same environmental impacts and impacts on a farming or grazing business and on a family home on the land as well…I would want to see the bill applying across the board to all petroleum, mining and energy activities.[84]

Technology-specific approach used by the bill

3.74 The technology-specific approach taken by the bill was also questioned. Creevey Russell Lawyers suggested that legislation 'should focus on the environmental outcomes (rather than specific activities)', with prosecutions 'only in instances where environmental damage occurs, rather than banning a particular engineering practice or technology'. According to Creevey Russell, an advantage of this approach is that the legislation would be 'more adaptable to new technologies and practices, where the potential risks may be unknown', as opposed to the technology-specific approach taken under the bill. Creevey Russell concluded that 'any environmental risks associated with hydraulic fracturing for gas and coal production are more appropriately legislated for under existing environmental laws'.[85]

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82 SACOME, *Submission 23*, p. 2.

83 Dr Matthew Currell, *Submission 11*, p. 9.

84 Ms Laura Hogarth, Solicitor, Creevey Russell Lawyers, *Proof Committee Hansard*, 27 July 2015, p. 47.

85 Creevey Russell Lawyers, *Submission 18*, p. 3.

Application only to constitutional corporations

3.75 The bill only applies to constitutional corporations. NSW Young Lawyers noted that constitutional corporations are generally the entities involved in mining and CSG activities, however, it questioned whether these entities 'could potentially be re-structured into a different type of business vehicle' to avoid being captured by the bill.[86] Similarly, Professor Hepburn suggested that the bill 'will potentially create chaos' that will encourage companies to seek to avoid the application of the bill to them. Professor Hepburn told the committee:

> In the future, mining companies are going to want to avoid the prospect of simply being unable to access the resource. At the moment, there are clearly impediments; for example, in Queensland you obviously have to go through the notification, conduct, compensation and all that negotiation process, but there is not that provision at the state level which allows the landholder to simply say, 'No, I don't consent' and have that upheld, because that would clearly create chaos for the issuance of the resource title. So what will happen is that companies will seek to avoid the application of the Commonwealth provisions.…They will seek to recalibrate their organisations.[87]

3.76 To avoid such an outcome, NSW Young Lawyers suggested that the bill should also rely on the Commonwealth's power to legislate in respect of interstate and international trade, as provided for in paragraph 51(i) of the Constitution. Under this approach, the offences and civil penalty provisions in the bill could also be drafted so that they apply to persons who, for the purposes of trade or commerce, engaged in the prohibited conduct. NSW Young Lawyers noted that this approach has been used in section 24D of the *Environment Protection and Biodiversity Conservation Act 1999*.[88]

Ultimate effectiveness of the bill

3.77 The final set of observations that this chapter will address is the effect that the landholders' right to refuse component of the bill is likely to have on coal mining operations. As has been noted, this aspect of the bill would make gas or coal mining activities undertaken by a constitutional corporation without prior written authorisation from landholders unlawful. However, the committee heard that it is 'ordinary business procedure' for coal mining companies to purchase the land they require.[89] Ms Leys from the NSW Farmers Association used the Shenhua Watermark mine as an example:

> Shenhua owns all of the land that they plan to undertake their operations on, certainly within the mining area and the disturbance area and parcels of

86 NSW Young Lawyers, *Submission 32*, p. 6.

87 Professor Samantha Hepburn, *Proof Committee Hansard*, 28 July 2015, p. 39.

88 NSW Young Lawyers, *Submission 32*, p. 6.

89 Mr Charlie Thomas, NFF, *Proof Committee Hansard*, 28 July 2015, p. 28.

> land around that, in a buffer. Early on they took a decision that they would go and make quite lucrative offers to landholders in that area to secure the area they wanted to mine.[90]

3.78 This observation is supported by the evidence received from a landholder in the area, who estimated that 17 people were 'bought out' to facilitate the Shenhua project.[91]

3.79 Ms Leys stated that the bill does not address NSW Farmers' main concern, which is that the planning laws allow mining to be undertaken on 'what we consider to be some of our best agricultural land'. Ms Leys concluded:

> A right to refuse does not address the issue of up-front planning processes that identify areas where industries may be able to go and identify industries that should be off limits.[92]

3.80 Mr Paul Nankivell from Save Our Soils Liverpool Plains similarly highlighted the importance of planning arrangements. Although he argued that landholders should have the ability to veto access to their land, he added that 'the real question should be: why are these mining companies allowed to go everywhere?'[93]

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90 Ms Danica Leys, Policy Director, Environment, New South Wales Farmers Association, *Proof Committee Hansard*, 28 July 2015, p. 28.

91 Ms Rosemary Nankivell, Chairman, Save Our Soils Liverpool Plains, *Proof Committee Hansard*, 25 August 2015, p. 3.

92 Ms Danica Leys, New South Wales Farmers Association, *Proof Committee Hansard*, 28 July 2015, p. 23.

93 Mr Paul Nankivell, Adviser, Save Our Soils Liverpool Plains, *Proof Committee Hansard*, 25 August 2015, p. 5.

Chapter 4

Committee view

4.1 This bill responds to the tension between the resources sector and some regional communities about certain coal and gas exploration and extraction activities, in particular the extraction of coal seam gas (CSG). The committee supports the principle that an agricultural landholder should have the right to determine who can enter and undertake gas or coal mining activities on their land. Landholders who provide access should be fairly compensated for doing so and shown respect when entry on their land takes place. The committee also expects that coal mining and unconventional gas projects to be subject to robust environmental regulation.

4.2 As outlined in Chapter 1, however, the committee has been tasked with considering a particular bill; it was not directed to undertake a wide-ranging inquiry into coal and unconventional gas. Accordingly, the principal issue that the committee has considered is whether there are issues that require Commonwealth legislation to address them, and if so, whether this bill is an appropriate and workable response.

4.3 It is clear that aspects of this bill would create uncertainty or would simply not work in practice. The committee notes, for example, the evidence received about the broad definition of 'ownership interest', and how it would be difficult, if not impossible, for a company to know that it has obtained written authorisation from every person who has an ownership interest in the relevant land. In addition, by providing an absolute right for landholders to veto land access, the bill could introduce what is essentially akin to a private ownership scheme for certain resources. Large amounts of compensation that private landholders may secure as a result of this would reduce the wider public benefit that arises from state ownership of the resources. It is also unclear why the written authorisation requirements, and the ban on hydraulic fracturing, would apply to some resources, but not others.

4.4 In any case, regardless of the views that exist on land access laws, hydraulic fracturing and competing land uses, these matters are principally the responsibility of the states. Various state parliaments have enacted detailed laws that address land access issues, including arbitration and compensation. State governments are also responsible for planning and land use policies. It is clear that issues related to land access and hydraulic fracturing have received, and continue to receive, careful consideration at the state level. Inquiries into unconventional gas are underway in Victoria, South Australia and Western Australia. Inquiries have concluded in recent years in New South Wales, Tasmania and the Northern Territory. Some state governments have imposed moratoriums on hydraulic fracturing while the issue is reviewed.

4.5 The committee also notes that landholders' rights can be enhanced as a result of arrangements between representatives of agricultural landholders and resource companies, such as the Agreed Principles of Land Access in New South Wales.

The committee encourages the further development and application of land access principles, such as the Agreed Principles of Land Access, that cover all industry participants in all relevant jurisdictions.

4.6 Landholders' interests and the interests of future generations need to be respected as part of the development of the unconventional gas sector. The regulatory regimes in place also need to be robust so that risks to agricultural land and water resources are minimised. The committee, however, fundamentally disagrees with the overall approach taken by the bill. The committee considers that this bill is an excessive and unworkable response to concerns that landholders may have about gas and coal activities. The committee also does not consider that it was provided with sufficient credible scientific evidence during the inquiry to justify a ban on hydraulic fracturing.

4.7 Any questions about the Commonwealth's and states' roles and responsibilities in these areas are most appropriately dealt with by the Council of Australian Governments (COAG), not by unilateral action undertaken by the Commonwealth. Although the primary responsibility for the regulation of unconventional gas rests with the states, the Australian Government can continue to show leadership via the COAG Energy Council and through Australian Government policies. The committee endorses the approach taken by the Australian Government regarding unconventional gas, as expressed in the Energy White Paper and the Domestic Gas Strategy. In particular, it is important to enhance community confidence about the development of unconventional gas by building on, and utilising, the knowledge base of unconventional gas so that policy and regulatory decisions are clearly based on sound evidence.

Recommendation 1

4.8 The committee recommends that the Senate not pass the bill.

Senator the Hon Anne Ruston
Chair

Australian Greens' Dissenting Report

1.1 Over the last decade Australia has witnessed a huge community campaign of resistance against coal, coal seam gas (CSG), shale gas and other unconventional gas which has united city and country, farmers, environmentalists, scientists and Indigenous Australians. The Lock the Gate movement and many other local groups and individuals have resisted the destruction of our land, water and climate in the public interest. The Australian Greens wish to place on record our support and admiration for this grassroots movement. Very few predicted its success, but the campaign has upended the old certainties to challenge the fossil fuel industry and shown that organised people can defeat organised money. It is in their honour that the Australian Greens introduced the Landholders' Right to Refuse (Gas and Coal) Bill 2015 (the Bill).

1.2 The purpose of the Bill is twofold—to allow all landholders including farmers, graziers, residents, local councils and native title holders to say "no" to unconventional gas and coal mining on their land and to ban hydraulic fracturing (or "fracking") for unconventional gas, because of the extraordinary risk to our land, water, climate and healthy rural communities from this industry and extraction method.

1.3 Right now, the balance between multinational mining companies and landholders is hopelessly skewed towards big coal and gas. The Bill would give landholders the right to say "no" to coal mining and unconventional gas, including CSG, shale gas, tight gas and underground coal gasification. This would include both exploration and production, and would apply to any land where activity has not already commenced.

1.4 The Australian Greens believe that Australia must rapidly transition away from polluting fossil fuels like coal and gas towards clean energy. We therefore do not support any new coal or unconventional gas approvals.

1.5 One step in the right direction would be giving landholders the right to say "no" to coal and gas mining on their land, and to immediately ban the dangerous process of fracking. That is why the Australian Greens introduced this Bill for the third time. Last time this Bill was introduced, it was voted down by the Liberal, National and Labor parties in the Senate on 6 March 2014.

1.6 The community supports this Bill. The Committee heard from 377 individuals and organisations, with around 95% of those supporting the Bill. The Australian Greens would like to thank all those who made a submission and appeared at public hearings.

Giving landholders the right to say "no" to coal and gas

1.7 During the inquiry the Committee heard extensive evidence at public hearings and in written submissions that the current system of land access arrangements created by the States is failing landholders and local communities. The chronic power imbalance between landholders and wealthy multinational coal and gas companies underpins every interaction, and hopelessly disadvantages landholders.

1.8 Landholders must be given the legal right to decide that they would prefer to be able to keep farming or living on their land, and for their children and grandchildren to have that option, rather than be forced to negotiate merely the price of entry with big coal and gas companies. Without the right to say no, this David and Goliath situation forced upon families and communities across Australia is even more weighted in favour of big coal and gas.

1.9 Farmers and community groups from every State where coal and unconventional gas activity is occurring or proposed have supported this Bill. These include landholders struggling to deal with the toxic CSG industry in Queensland, Lock the Gate, SOS Liverpool Plains, Groundswell Gloucester and others in NSW, the Limestone Coast Protection Alliance and Livestock SA from South Australia, No Fracking WAy, Frack Free Tas and many other groups and individuals.

1.10 Drew Hutton from the Lock the Gate Alliance said:

> The first assumption is that there is some sort of equality in the negotiation that goes on between mining companies and farmers. In fact, as far as we are concerned, there is no equality. It is negotiation with a gun at the head of the landowner.[1]

1.11 Lynette Nicholson from the Basin Sustainability Alliance summed up the situation well:

> …the claims by industry and government that the 4,500 to 5,000 [land access agreements] already signed by landholders and the fact that very few landholders have utilised courts were somehow evidence that landholders were happily coexisting with the resource companies. Nothing could be further from the truth. Landholders are compelled to sign the CCA. There is nothing voluntary about the process.[2]

1.12 Rosemary Nankivell from SOS Liverpool Plains said:

> …the bill uses the term 'agreement'. I can tell you unequivocally that, when dealing with a resource company, there is no such thing as an agreement. In some cases, perhaps, a painful type of coexistence results, but it is the farming community that does the giving.[3]

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1 Mr Drew Hutton, Lock the Gate, *Committee Hansard*, 27 July 2015, p. 9.

2 Miss Lyn Nicholson, Basin Sustainability Alliance, *Committee Hansard*, 27 July 2015, p. 17.

3 Ms Rosemary Nankivell, SOS Liverpool Plains, *Committee Hansard*, 25 August 2015, p. 2.

1.13 Kirsty Kelly from People for the Plains said:

> All the power lies with the coal and gas companies; the landholders' only position is to accept or go to legal challenge. There is much discussion about coexistence between coal and gas and agriculture. But how can you have coexistence when all the power lies with one party?[4]

1.14 Lestar Manning from P&E Law who has represented landholders in land access negotiations said:

> That comes from a lack of ability by many farmers to actually understand the information that is being put before them and the quantity of information that is being put before them…The clients get left in the position that they have to trawl through these documents to try to work out what information is there, what is relevant to their land, without the expertise that the companies have. If you put yourself into the position of a farmer, he is running a business; his business is operating his farm. He is given this material, and the party on the other side has myriad experts to assist, facilitate and explain. That is a significant imbalance of power.[5]

1.15 The Committee's report starts out by saying that:

> The committee supports the principle that an agricultural landholder should have the right to determine who can enter and undertake gas or coal mining activities on their land.[6]

1.16 After making what sounds like a bold statement of principle, the Committee then fails to make any recommendations to actually implement that principle. It applauds the voluntary arrangements such as the Agreed Principles of Land Access and the wholly ineffective COAG process being carried out through the COAG Energy Council. In other words, the Committee is endorsing the Liberal-National government's headlong rush to expand the unconventional gas industry even further. It is clear which side the Liberal-National government has chosen—the gas companies.

1.17 Rather than supporting the Greens' Bill, or proposing any other solution which would actually grant landholders the rights which it claims to support, the Committee recommends that the Bill be rejected.

1.18 The Greens will continue to push for landholders and local communities to be given the right to refuse coal and unconventional gas on their land, and will continue to support communities who stand up for their land, water and a safe climate.

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4 Ms Kirsty Kelly, People for the Plains, *Committee Hansard*, 25 August 2015, p. 16.

5 Mr Lestar Manning, P&E Law, *Committee Hansard*, 27 July 2015, p. 17.

6 Chair's report, chapter 4, paragraph 4.1.

Banning fracking

1.19 The Bill also bans fracking for unconventional gas, including CSG, shale gas and tight gas. This ban is warranted due to both the unprecedented level of risk and scientific uncertainty associated with fracking and due to the groundswell of community concern in the face of those risks. Fracking presents an unprecedented risk to surface water, ground water, clean air and a safe climate. The evidence from across Australia and around the world has been mounting over recent years.

1.20 Threats to water resources from fracking are not adequately understood, but the evidence is building that they are severe and have potentially devastating consequences. Huge coal seam gas projects in Queensland were approved with minimal baseline data and hopelessly inadequate groundwater monitoring. Both of the major parties have approved huge fracking operations without adequate scientific certainty about their impacts. Even though federal approvals for the Santos and British Gas Group gasfields were given in 2010, and further approvals were given to Arrow Energy in 2013, the scientific work to assess the risks of those projects has not been done. The CSIRO, the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) and the Environment Department's Office of Water Science have not even commenced scientific work on the impacts of fracking chemicals on deep aquifers.

1.21 The current round of studies will not establish with any certainty the risks associated with mobilising naturally occurring BTEX carcinogens. Officials from the agencies concerned freely admit that the work on those risks is 'preliminary'.

1.22 Risks associated with aquifer contamination, fracture growth, leaks from well casings and earthquakes caused by fracking are all poorly understood but potentially very grave.

1.23 During this inquiry, the Committee heard evidence from CSIRO and the federal Department of Environment confirming that these studies are in their infancy.

1.24 Alarmingly, the human health impacts of fracking are also very poorly understood although mounting evidence shows that they can be severe. Gas leaks caused by faulty equipment and fissures in the earth, as well as contaminated drinking water are unacceptable risks for our rural communities to endure. In the gasfields of Queensland, at Tara and Chinchilla, residents have reported headaches, nose bleeds, skin rashes and nausea amongst children. During the inquiry, the Committee heard directly from landholders affected by the CSG industry. Shay Dougall and Narelle Nothdurft from the Hopeland Community Sustainability Group provided powerful evidence:

> Narelle's family have got documented problems with eyes, nose and throat. They have problems with chronic headaches and migraines.[7]

7 Ms Shay Dougall, *Committee Hansard*, 27 July 2015, p. 26.

> My seven yr old boy[...] has been suffering fast onsetting headaches for a few years now. They are so severe he bangs his head into the wall the floor anything to make them stop.[8]

1.25 The Committee heard that that Queensland Department of Health investigation recommended that further studies be conducted including air quality monitoring, but that they were discontinued for no discernible reason and no such studies were carried out.[9] Two years later those residents are still waiting. Evidence like this ought to ring warning bells.

1.26 Studies in the USA have shown that the fugitive emissions of greenhouse gas from fracked shale gas are vastly higher than for conventional gas. The claims of the gas industry that CSG, shale and tight gas are low-emissions alternatives to coal simply are not supported by robust Australian studies.

1.27 The CSIRO's preliminary study of fugitive emissions from CSG found that further work was required. During this inquiry, the CSIRO confirmed that no investigation is planned to examine fugitive emissions from fracked shale and tight gas, even though exploration permits have already been granted for these activities by reckless State governments. The CSIRO also confirmed that even after its current small scale and preliminary studies are complete, fugitive emissions from several major stages of production including water treatment, gas processing and gas compression will still be totally unknown.[10]

1.28 The precautionary principle, to which Australia has committed and which is written into our national environment laws, demands that where an action presents a risk of harm to the public or the environment, the absence of scientific consensus is not an excuse for regulators to do nothing.

1.29 Unfortunately the Committee has adopted a deeply flawed interpretation of the precautionary principle.

> The committee also does not consider that it was provided with sufficient credible scientific evidence during the inquiry to justify a ban on hydraulic fracturing.[11]

1.30 This is precisely the wrong approach. The EDOs of Australia argued that, 'at a minimum', a moratorium on hydraulic fracturing should be implemented nationally 'until such time as the significant list of knowledge gaps highlighted in reports and

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8 Ms Narelle Northdurft, *Submission 96*, p. 5.

9 Dr Geralyn McCarron, *Committee Hansard*, 27 July 2015, p. 60.

10 CSIRO, answers to questions on notice, question 5.

11 Chair's report, chapter 4, paragraph 4.6.

peer-reviewed literature have been properly addressed.[12] This Bill properly implements the precautionary principle to ban fracking.

1.31 Moratoriums on fracking exist in Tasmania and Victoria. Local communities—too many to name individually—from Queensland to Tasmania are already leading the way by declaring themselves 'gasfield free'.

1.32 Even since this inquiry began, some members of the big parties have started to heed the growing calls from the community and have begun moving towards the Greens' position. The Western Australian Labor Party has adopted a platform calling for a moratorium on fracking, and the Victorian Coalition Opposition has called for an extension of the moratorium on onshore gas exploration to be extended to 2020. At the same time, Coalition and Labor State and Territory governments in NSW, Queensland, South Australia, the Northern Territory and Western Australia continue to press ahead with plans for expansion. The Australian Greens have long advocated for a ban on unconventional gas, so we welcome this newfound support and hope that it translates into action rather than more empty words.

1.33 This Bill would align Australia with the growing international movement against this environmentally and socially reckless extraction technique. Bans or moratoriums on fracking are in place or imminent in Canada in Quebec, Nova Scotia and Newfoundland. In Europe, they are in place or imminent in Germany, Wales, Scotland, France, Bulgaria, and the Netherlands, and in regions and cities in Switzerland and Spain. In the USA, New York State and Vermont have banned fracking. Cities and counties in California, Colorado, Texas, Hawaii, Delaware and Washington DC have also imposed bans or moratoriums.

Fixing the system – banning mining donations

1.34 Throughout the course of this inquiry the Committee took extensive evidence about the failure of State and Federal governments from both the Labor and Liberal-National sides of politics to regulate the coal and unconventional gas industries adequately. The massive expansion of CSG in Queensland and the unconstrained proliferation of coal mines in the Hunter Valley in NSW, the Bowen and Surat Basins in Queensland are each examples of a total failure of adequate regulation.

1.35 This failure of regulation has been consistent across both federal and State governments, and it calls for systemic reform. The Greens believe that reforming our democracy to curb the influence of corporate donors, especially those involved in extractive industries such as coal and unconventional gas, is vital to securing adequate protection for landholders, a healthy environment and a safe climate.

12 EDOs of Australia, *Submission 33*, p. 9.

1.36 The Greens' Bill, the Commonwealth Electoral Amendment (Donations Reform) Bill 2014[13] would ban political donations from mining companies, developers, tobacco, alcohol and gambling companies. The Australian Greens believe that passing that Bill would go a long way towards addressing the many failures of regulation identified during this inquiry.

Recommendation 1

1.37 That the Parliament pass the Landholders' Right to Refuse (Gas and Coal) Bill 2015 in order to give landholders the right to say 'no' to coal and unconventional gas on their land, and to ban fracking.

Recommendation 2

1.38 That the Parliament pass the Greens' Commonwealth Electoral Amendment (Donations Reform) Bill 2014 in order to ban political donations from mining companies, developers, tobacco, alcohol and gambling companies.

Senator Larissa Waters
Senator for Queensland

13 More information on the Bill can be found here: http://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=s992 and here: http://lee-rhiannon.greensmps.org.au/content/media-releases/greens-bill-ban-political-donations-developers-tobacco-alcohol-gambling-and-m

Appendix 1

Submissions, tabled documents, additional information and answers to questions taken on notice

Submissions

1 Ms Dereka Ogden
2 Mr David and Ms Leah McDonnell
3 Barkly Landcare & Conservation Association
4 Mr Michael Mardel
5 Ms Alice Nagy
6 Mr Ken Grundy
7 Ms Alison Hamilton
8 Ms Estelle Ross
9 Mrs Allison Wharley
10 Ms Kate Galloway
11 Dr Matthew Currell
12 Ms Wendy Burrill
13 Ms Heather Gibbons
14 Mr Russell Langfield
15 No Fracking WAy
16 Department of Mines and Energy, Northern Territory Government
17 Harry and Margaret Keaveney
18 Creevey Russell Lawyers
19 Lock the Gate Alliance
20 Livestock SA
21 Australian Petroleum Production and Exploration Association
22 QGC
23 South Australian Chamber of Mines and Energy
24 p&e Law
25 AGL Energy Limited
26 Department of Agriculture
27 Bass Coast
28 National Farmers' Federation
29 WAFarmers
30 Petroleum Exploration Society of Australia Ltd
31 Department of Industry and Science
32 NSW Young Lawyers
33 Environmental Defenders Offices of Australia
34 Energy Supply Association of Australia
35 Community over Mining
36 Latrobe Valley Sustainability Group
37 Mr John Macinnes
38 Mr Adrian Rogers
39 Ms Mora Main

40 Mr Peter Lake
41 Minerals Council of Australia
42 Dr John Schutz
43 Ms Jennifer Hole
44 Ms Jennifer Brown
45 Mr Paul Osborn
46 Mr Alec Lucke
47 Mr Lou Baxter
48 Queensland Resources Council
49 Name Withheld
50 People for the Plains
51 Ms Leanne Emery
52 Ms Sarah Ciesiolka
53 Ms Leila Huebner
54 Ms Heather Drayton
55 Coal & CSG Free Mirboo North
56 Ms Antonia Nagy
57 Ms Wendy Davis, CSG Free Poowong
58 Ms Gillian Johnson
59 Ms Miriam English
60 Australian Pipelines and Gas Association
61 Hunter Region Landcare Network
62 Ms Elizabeth Weiss
63 Mr Justin Moore
64 Ms Lorna Jelinek, Ms Lorna and Mr Conrad Jelinek
65 Groundswell Gloucester Inc
66 Ms Maureen Versteden
67 Ms Debbie Nulty
68 Mr Max Williamson, Wiltax Consulting Pty Ltd
69 Mr Andrew Rea
70 Wide Bay Burnett Environment Council Inc
71 Mr Nicolas Hirsch
72 Ms Cosima Faludi
73 Ms Cathy Picone
74 Ms Margeaux Chandler
75 Ms Jan Telford
76 Ms Anna Hetherington
77 Ms Diane Hobiger
78 Environment Council of Central Queensland
79 Mr David Arthur
80 Mr John Hillier
81 Ms Kathryn Kelly
82 Ms Kathryn McGilp
83 Mr Peter Sainsbury
84 Dr Geralyn McCarron
85 Frack Free Tas

86 Professor Samantha Hepburn
87 Queensland Government
88 South Australian Government
89 Basin Sustainability Alliance
90 Bimblebox Alliance Committee
91 Limestone Coast Protection Alliance
92 Ms Anne Daw
93 Quentin and Kirsty Kelly
94 Oakey Coal Action Alliance Inc
95 Upper Mooki Landcare
96 Mrs Narelle Nothdurft

Tabled documents

Basin Sustainability Alliance – Right to Information Request for a Stimulation Risk Assessment (public hearing, Brisbane, 27 July 2015)

Basin Sustainability Alliance – 'Grazier says gas companies should respect landholder advice' (public hearing, Brisbane, 27 July 2015)

Basin Sustainability Alliance – Department of Environmental Conservation, New York State, USA, *Final supplemental generic environmental impact statement on the oil, gas and solution mining regulatory program* (public hearing, Brisbane, 27 July 2015

Dr Geralyn McCarron – The landholder's right to refuse gas: the experience of unconventional gas in Queensland (public hearing, Brisbane, 27 July 2015)

Hopeland Community Sustainability Group – The Precautionary Principle (public hearing, Brisbane, 27 July 2015)

Dr Geralyn McCarron – Letter from Darling Downs Hospital and Health Service dated 27 October 2014 (public hearing, Brisbane, 27 July 2015)

Dr Geralyn McCarron – Letter from the Minister for State Development and Minister for Natural Resources and Mines, Queensland Government dated 16 July 2015 (public hearing, Brisbane, 27 July 2015)

Dr Geralyn McCarron – 'Unconventional gas and oil drilling is associated with increased hospital utilization rates' (public hearing, Brisbane, 27 July 2015)

Upper Mooki Landcare – 'Werris Creek mine update from Quirindi Advocate of 29 July 2015' (public hearing, Tamworth, 25 August 2015)

Additional information

Report of the Independent Inquiry into Hydraulic Fracturing in the Northern Territory, provided by Dr Allan Hawke AC

Dr Wayne Somerville, *How Could CSG Air Pollution in the Darling Downs be an 'Acceptable' Risk to Health? The Elephant That Can't Get Into the Room*, May 2015, provided by Dr Geralyn McCarron

Extract from QGC Stage 2 Water Monitoring and Management Plan, '13.0 Well stimulation', provided by Dr Geralyn McCarron

Origin Energy – Response to evidence taken at public hearing, 27 July 2015, Brisbane

QGC – Response to evidence taken at public hearing, 27 July 2015, Brisbane

Mrs Anne Daw, Limestone Coast Protection Alliance, list of documents provided to the committee on 15 September 2015

Answers to questions taken on notice

p&eLaw – Answer to a question taken on notice (public hearing, Brisbane, 27 July 2015)

APPEA – Answer to a question taken on notice (public hearing, Canberra, 28 July 2015)

Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development – Answers to questions taken on notice (public hearing, Brisbane, 27 July 2015)

Department of Industry and Science – Answers to questions taken on notice (public hearing, Canberra, 28 July 2015)

CSIRO – Answers to questions taken on notice (public hearing, Canberra, 28 July 2015)

Queensland Resources Council – Answers to questions taken on notice (public hearing, Canberra, 28 July 2015)

Department of the Environment – Answers to questions taken on notice (public hearing, Canberra, 28 July 2015)

Appendix 2

Public hearings

Monday, 27 July 2015 – Brisbane

Environmental Defenders Offices of Australia

Ms Rachel Walmsley, Director of Policy and Law Reform, EDO NSW
Dr Emma Carmody, Policy and Law Reform Solicitor, EDO NSW
Ms Cara Mahoney, Law Reform Solicitor, EDO Queensland

Lock the Gate Alliance

Mr Drew Hutton, President

Basin Sustainability Alliance

Miss Lynette Nicholson, Chairperson
Mr Neil Cameron, Committee Member

Hopeland Community Sustainability Group

Mrs Shay Dougall, Spokesperson and Founder
Mr George Bender, Spokesperson
Mrs Pam Bender, Spokesperson

Independent Expert Scientific Committee on Coal Seam Gas and Large Coal Mining Development

Dr Andrew Johnson, Chair

p&eLaw

Mr Lestar Manning, Director

Creevey Russell Lawyers

Ms Laura Hogarth, Solicitor

Oakey Coal Action Alliance Inc

Mr Paul King, Acting Secretary

Dr Geralyn McCarron (private capacity)

Tuesday, 28 July 2015 – Canberra

Department of the Environment

Mr Dean Knudson, First Assistant Secretary, Environment Standards Division
Dr Diana Wright, First Assistant Secretary, Science Division
Mr Simon Banks, Assistant Secretary, Environment Standards Division
Mr Shane Gaddes, Assistant Secretary, Environment Standards Division
Ms Gayle Milnes, Assistant Secretary, Office of Water Science
Mr Rob Sturgiss, Assistant Secretary, National Inventory Systems and International Reporting Branch

Department of Agriculture

Mr Ian Thompson, First Assistant Secretary, Sustainability and Biosecurity Policy Division
Mr Ian Towers, Director, NRM Policy, Sustainable Agriculture Branch

Department of Industry and Science

Ms Margaret Sewell, Head of Division, Energy
Dr Chris Locke, General Manager, Onshore Gas and Governance Branch
Ms Nicole Hinton, Manager, Unconventional Gas Section
Mr Peter Stafford, Senior Policy Advisor, Coal and Minerals Productivity Branch

National Farmers' Federation

Mr Charlie Thomas, General Manager, Agribusiness and Rural Affairs
Ms Danica Leys, Policy Director, Environment, NSW Farmers' Association

CSIRO

Dr Damien Barrett, Research Director, Energy
Dr Peter Mayfield, Flagship Director, Energy

Professor Samantha Hepburn (private capacity)

Minerals Council of Australia

Ms Kirsten Livermore, Acting Director, Health, Safety, Environment and Community Policy

Queensland Resources Council

Ms Katie-Anne Mulder, Resources Policy Manager

Australian Petroleum Production and Exploration Association

Mr Rick Wilkinson, Chief Technical Officer
Mr Matthew Paull, Policy Director, Queensland

Tuesday, 25 August 2015 – Tamworth

Save our Soils Liverpool Plains

Ms Rosemary Nankivell, President
Mr Paul Nankivell, Adviser

Lock the Gate Alliance

Mr Phil Laird, National Coordinator
Ms Georgina Woods, Policy Coordinator

People for the Plains

Mrs Sally Hunter, President
Ms Kirsty Kelly, Secretary

Ms Sara Ciesiolka (private capacity)

Upper Mooki Landcare

Ms Nicola Chirlian, Chair
Mrs Heather Ranclaud, Committee member

Wednesday, 9 September 2015 – Canberra

Limestone Coast Protection Alliance

Dr Catherine Pye, Correspondence Secretary
Mrs Anne Daw, Media Liaison Officer

Appendix 3

List of recent inquiries and reviews into matters related to unconventional gas

The following is a non-exhaustive list of parliamentary and government-initiated reports that have considered issues related to unconventional gas.

- Commonwealth:
  - Senate Rural Affairs and Transport References Committee, *Management of the Murray Darling Basin Interim report: the impact of mining coal seam gas on the management of the Murray Darling Basin* (2011).
  - Standing Council on Energy and Resources (now COAG Energy Council), *National Harmonised Regulatory Framework for Natural Gas from Coal Seams* (2013).
  - Productivity Commission, *Mineral and Energy Resource Exploration* (2014).
  - Senate Select Committee into Certain Aspects of Queensland Government Administration related to Commonwealth Government Affairs (2015).
- New South Wales:
  - A committee of the Legislative Council conducted an inquiry into coal seam gas in 2011–2012.[1]
  - Between 2013 and 2014, the NSW Chief Scientist and Engineer, Professor Mary O'Kane, conducted an independent review of CSG activities in NSW.[2]
  - In 2014, after being commissioned by the NSW Government to do so, Mr Bret Walker SC completed an independent review of the process for arbitrating land access arrangements for mining and petroleum exploration.[3]

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1 The inquiry was conducted by the Legislative Council General Purpose Standing Committee No. 5. See www.parliament.nsw.gov.au/prod/parlment/committee.nsf/0/318A94F2301A0B2FCA2579F1001419E5?open&refnavid=CO3_1.

2 See www.chiefscientist.nsw.gov.au/coal-seam-gas-review.

3 See www.resourcesandenergy.nsw.gov.au/landholders-and-community/landholders-rights/walker-review-of-land-arbitration-framework.

- Victoria:
  - In May 2015, the Legislative Council referred an inquiry into unconventional gas in Victoria to its Environment and Planning Committee. The final report is due by 1 December 2015.
  - The Victorian Government advised the committee that a parliamentary inquiry into onshore unconventional gas will be conducted in 2015.
  - In 2013, the Hon Peter Reith AM chaired a Victorian Gas Market Taskforce inquiry that considered gas supply issues.[4]
  - In May 2012, the Victorian Parliament's Joint Economic Development and Infrastructure Committee completed an inquiry into greenfields mineral exploration and project development in Victoria.[5]
- Queensland—the Queensland Competition Authority has reviewed the regulation of the CSG industry, with its final report provided to the Queensland government in January 2014.[6]
- Western Australia—the Legislative Council's Environment and Public Affairs Committee has been conducting an inquiry since August 2013 into the implications for Western Australia of hydraulic fracturing for unconventional gas.[7]
- South Australia—the House of Assembly Natural Resources Committee is conducting an inquiry into the potential risks and impacts in the use of fracking to produce gas in the south-east of South Australia.[8]
- Tasmania—the Department of Primary Industries, Parks, Water and Environment completed a review of hydraulic fracturing in Tasmania in 2015.[9]
- Northern Territory—in March 2014, the Northern Territory Government appointed Dr Allan Hawke AC to conduct an inquiry into hydraulic fracturing. The report was released in February 2015.[10]

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4 See www.energyandresources.vic.gov.au/about-us/publications/Gas-Market-Taskforce-report.

5 See www.parliament.vic.gov.au/57th-parliament/edic/inquiries/article/1391.

6 See www.qca.org.au/Other-Sectors/Productivity/Completed-Reviews/Coal-Seam-Gas.

7 See www.parliament.wa.gov.au/Parliament/commit.nsf/WCurrentNameNew/5A73802849C79D1E48257831003B03B2?OpenDocument.

8 See www.parliament.sa.gov.au/Committees/Pages/Committees.aspx?CTId=5&CId=295.

9 See http://dpipwe.tas.gov.au/Documents/Review%20of%20hydraulic%20fracturing%20in%20Tasmania%20-%20Final%20Report%20%2025%20Feb%2015.pdf.

10 The report was provided to the committee by Dr Hawke and published as *Additional information 1*.