

## Access and property rights

- 2.1 In order to be successful, the draft legislation must establish clear access and property rights for the burgeoning GHG industry, while safeguarding those rights currently held by petroleum licensees. In order to be successful the legislation must:
- Provide transparent processes for both the selection and awarding of acreage for GHG storage;
  - Establish a range of GHG titles which are sufficient for undertaking GHG activities; and
  - Maintain the current rights of petroleum licence holders.

### **Acreage selection process**

- 2.2 The process by which GHG acreage is selected is a pivotal issue for the success of the legislation. The intention in the GHG legislation is to follow the model used for petroleum in relation to the selection of acreage for exploration.
- 2.3 The initial stages for selection of prospective acreage will involve a call for public nominations of areas from interested parties, as well as consultation with State and Territory governments. Through this process it is envisaged that a series of sites will be short-listed that could potentially be released for GHG exploration. Geoscience Australia will then prepare a data package for each site, which will include the geotechnical information currently held by the government; the location and type of any petroleum wells that have been drilled in the area; any 3D seismic work that has been

done; whether there are defence interests or shipping in the area; and, crucially, if there are any overlapping petroleum titles.

- 2.4 A critical element in the selection of GHG acreage will be the interaction with petroleum title acreage. The most prospective acreage for GHG operations in Australia is in areas which currently also enjoy high levels of oil and gas productivity. The selection of acreage for GHG operations, then, requires complex balancing of the property rights currently held by petroleum and gas title holders with the promotion of the nascent GHG injection industry.
- 2.5 One of the most significant offshore areas for GHG storage in Australia is the offshore Gippsland Basin. The geology of this area is particularly suited to CO<sub>2</sub> storage, and its proximity to the high emitting coal driven energy sector of the Latrobe Valley also makes it economically attractive. Stakeholder consultation with the Department of Resources, Energy and Tourism to date has suggested that this area is likely to be highly sought after by GHG proponents. However, the region is also a particularly significant area for oil and gas production in Australia. ExxonMobil quantified its understanding of the significance of its oil and gas production from Gippsland in its submission:
- ExxonMobil's Bass Strait (Gippsland) production operations have produced almost two-thirds of Australia's cumulative oil production and almost 30 percent of Australia's gas production.<sup>1</sup>
- 2.6 There is ongoing debate as to what risks might be involved in the overlapping of GHG and petroleum operations. In its submission, ExxonMobil argued that there are significant risks to its petroleum operations should GHG activities be introduced in the same area, arising from the design of its infrastructure:
- It should ... be recognized that the injection of CO<sub>2</sub> into or near operational oil and gas fields within the Gippsland Basin presents significant safety and operational risk and integrity issues to personnel, production and infrastructure. These risks and integrity issues are driven by the fact that none of the Gippsland Basin facilities have been designed for exposure to or handling of CO<sub>2</sub> or its by-products. These risks in Gippsland may not be manageable from either a technical or cost perspective.<sup>2</sup>
- 2.7 These potential risks must be balanced with the need for storage locations in close proximity to the Latrobe Valley. In evidence before the Committee,
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1 ExxonMobil, Submission no. 6, p. 5.

2 ExxonMobil, Submission no. 6, p. 5.

representatives of the Victorian Government argued that to be too conservative in the selection of GHG acreage based on the perceived risks to the petroleum industry would be effectively to offer the petroleum operators the power of veto before any GHG exploration had even begun:

It is understood that the Commonwealth is intending to release only limited parts of the Gippsland Basin for CCS exploration, excluding areas subject to petroleum titles. Victoria considers that all areas of the Gippsland Basin should be released. Areas should not be excluded solely because there is an existing petroleum title over an area. Victoria is concerned that a possible consequence of the Commonwealth's approach may be that attractive areas for CCS are excluded from exploration, costing many millions of dollars, and taking some five to 10 years, essential for discovering and proving viable CCS injection and storage sites. In most instances, exploration will be unlikely to pose a significant risk of a significant adverse impact on the operations of petroleum titleholders. Therefore exploration should be allowed, indeed, encouraged, to ensure that storage sites are identified as quickly as possible to meet our national objectives.<sup>3</sup>

- 2.8 Monash Energy in its submission also stated this concern, suggesting that the process for selecting GHG acreage lacks transparency due to the lack of consultation with the wider industry following the initial call for nominations:

From the outset, greenhouse gas storage considerations, even at the stage of acreage release, are not assessed on an unfettered basis. Instead, the starting point appears to be to consider greenhouse gas acreage release in the context of its impact on other resources 'especially petroleum'... This is not to deny the reality that where potential greenhouse gas storage acreage overlies petroleum tenements, there is a need to consider interactions. However, by using the processes that have been employed for the OPA model, this consideration takes place between Governmental agencies and Departments in a manner that lacks transparency... and consultation. Only the call for nomination of acreage itself involves industry consultation. After that, the assessment, comprehensive compilation of information and package release takes place in a manner where the basis for rejecting certain potential acreage for release is not known to interested parties. It takes place in a manner where an interested

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3 Mr Dale Seymour, DPI Victoria, *Transcript of Evidence*, 15 July 2008, p. 19.

greenhouse gas storage party is not given an opportunity to put alternative evidence that may assist in the proper consideration of any impact on other resources such as petroleum.<sup>4</sup>

- 2.9 The joint submission from the Australian Coal Association and the Minerals Council of Australia also expressed the need for a greater transparency in the acreage selection process, including a requirement for the Minister to disclose the justification for the selection of final acreage:

The specific references to compatibility with petroleum resource usage leaves open the potential for acreage to be denied to GHGS AP applicants before a bid process is even commenced.

The ACA and MCA submit that this process requires greater transparency. The factors for consideration in a GHGS acreage release should be set out in publicly available guidelines, or prescribed by regulations. Where a potential applicant nominates an area for acreage release, the Minister should be required to release his or her statement of reasons in reaching the decision to release the acreage or not.<sup>5</sup>

- 2.10 WWF made the point in its submission that considering a wide range of factors in the initial selection of appropriate acreage for long-term GHG storage is crucially important to the ultimate goal of establishing an effective carbon capture and storage industry:

In order to facilitate economic, environmentally and socially sound and efficient demonstration and commercialization of CCS, consideration should be given to developing a national interest criterion for selection of storage sites to be licensed for injection. A national interest criterion could include consideration of: distance of storage site from power capture sites or hubs, existing pipeline routes or potential route, quality of the site, potential size of reservoir, access to alternative storage locations, and impact on environmental and culturally sensitive areas.<sup>6</sup>

- 2.11 Such a 'national interest criterion' would likely acknowledge that sites such as Gippsland are attractive for the long term storage of CO<sub>2</sub> for a number of reasons, which may go some way to counter-balance any risk of impact on petroleum operations.

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4 Monash Energy, Submission no. 13, pp. 12–13.

5 ACA/MCA, Submission no. 27, p. 27.

6 WWF, Submission no. 21, p. 11.

- 2.12 In its submission, ExxonMobil commented that current areas of petroleum production in the Gippsland region could potentially be utilised for GHG storage once oil and gas reserves were depleted:

The Bass Strait fields, which continue to be a major supplier of crude oil to Australia and one of the largest domestic gas sources on the Eastern seaboard, has the potential to be a candidate site for a future CCS initiative once depleted. It is our assessment that there may be depleted reservoirs available for CCS in the Gippsland Basin in the 2025+ timeframe, although this timeframe remains uncertain as production technology development continues to extend the life of the fields.<sup>7</sup>

## Committee conclusions

- 2.13 The Committee acknowledges that the selection of suitable areas for acreage release is an essential requirement for the development of CCS in Australia.
- 2.14 It is recognised by the Committee that the selection of acreage must balance the needs of potential CCS projects with risks to established activities such as petroleum exploration and production.
- 2.15 The process for consultation with industry and other stakeholders is an important element in the identification of appropriate areas for acreage release.

### Recommendation 3

- 2.16 **The Committee recommends that no acreage be automatically excluded from consideration for selection on the grounds of pre-existing petroleum activities.**

### Recommendation 4

- 2.17 **The Committee recommends that the process for identifying and short-listing acreage for release should be transparent and systematic, and should consider the views and submissions of all relevant stakeholders.**

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<sup>7</sup> ExxonMobil, Submission no. 6, p. 2.

## Acreage awarding process

- 2.18 Once the acreage for long term CO<sub>2</sub> storage has been selected, it will be released for bidding. The responsible Commonwealth Minister will make a public call for bids in the Gazette, inviting applications for either work or cash bids for an assessment permit for that block. This mirrors the procedure for the petroleum industry, in which cash bidding is rarely utilised. It is expected that for GHG acreage also, cash bidding will be infrequent. The bidding process is likely to run for six to twelve months.
- 2.19 In the situation where multiple applicants submit bids, the acreage will be awarded to the applicant that is 'most deserving'. The 'most deserving' applicant will be selected by the responsible Commonwealth Minister through a process of ranking the applicants according to publicly available criteria. These criteria will assess the scope and quality of an applicant's work program bid. This process is parallel to that in bidding for petroleum acreage, which has traditionally based its analysis of the work program on the level of expenditure.
- 2.20 If certain applicants are deemed to be 'equally deserving' the responsible Commonwealth Minister will request further details for additional work and expenditure at the site. The Minister will then consider this when establishing which of the applicants receives the permit.
- 2.21 In its submission, BP outlined its concerns with the parity of process between GHG and petroleum bidding:

Although the Bill is silent on the definition of 'most deserving' for the purpose of awarding acreage, the Australian Government Solicitor's notes state that a work program alone is the criterion. This is a direct analogue with existing petroleum legislation, but the circumstances are different and require different treatment. The petroleum industry is highly developed throughout its value chain, with deep and competitive industrial sectors in all aspects. A bidder for exploration acreage need not have any ability to develop, produce, ship, refine, distribute or market the hydrocarbon because there are so many others who can. The Government therefore has no regard to their ability in these sectors and can focus solely on the exploration work program. However, the GHGS industry has not yet reached this level of maturity. A competent work program is not a sufficient measure of a bidder's ability to progress a development, and the Government will need to take, initially at least, a broader view of a bidder's competencies

if they want to maximize the prospect of GHGS projects proceeding.<sup>8</sup>

- 2.22 This argument that the criteria for the analysis of the ‘most deserving’ applicant should have broader scope has been widely voiced. In its submission, Monash Energy suggested that the criteria should include consideration of the availability of a source of CO<sub>2</sub>:

Monash Energy is concerned to see that the criteria should include recognition of matters peculiar to greenhouse gas, such as a party that has or is reasonably likely to have an identified greenhouse gas stream available for injection into a greenhouse gas storage formation. Monash Energy submits that such a party should be accorded priority over competing parties that base their work bid solely on levels of expenditure, which might otherwise encourage acquisition of acreage on a speculative basis.<sup>9</sup>

- 2.23 Monash Energy argued that should expenditure alone be considered when assessing the proposed work programs, not only will major factors that could contribute to the success or failure of the carbon capture and storage project be disregarded, but the possibility for acreage to be acquired for the purpose of profiteering is created.

- 2.24 Further to this, Mr Bounds argued in evidence before the Committee, that should expenditure be the primary criterion for assessing a work bid, it should not be confined to expenditure at the site:

We would encourage the minister to take into account expenditure that may happen off the permit site as well – the production of CO<sub>2</sub> onshore where it involves clean coal technologies, for example; expenditure on transport infrastructure in order to get the CO<sub>2</sub> from the point of production to the point of sequestration; and expenditure on the research that has been undertaken at that level. We would encourage the minister to give due weight to the party who holds CO<sub>2</sub> that needs to be sequestered, rather than treating it as ‘unassociated activities’ and thereby leading to a sort of merchant model. We would also encourage the minister to take into account the fact that this is a very young activity globally and there may be further steps that need to be taken in order to facilitate the growth of the clean coal industry in Australia which involve facilitating carbon capture and storage beyond just a work

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8 BP, Submission no. 12, p. 6.

9 Monash Energy, Submission no. 13, p. 16.

program bidding scheme. That is why we say: do not just look at expenditure on the site alone.<sup>10</sup>

- 2.25 The proposed acreage awarding process has also been criticised for the advantages afforded to petroleum production licensees, should they wish to compete for GHG acreage. The Victorian Government in its submission argued that:

...the accumulated wealth of knowledge, and longstanding presence, of petroleum operators in the Gippsland Basin, may translate into such operators being considered as 'most deserving' of the grant. The grant assessment criteria ignores the fact that a CCS proponent, new to the area, will not have recourse to basic information and regional studies necessary to make a 'competitive' acreage bid, being the same information which will enable an existing petroleum operator to submit a 'superior' bid.<sup>11</sup>

- 2.26 The Australian Coal Association and the Minerals Council of Australia concurred, stating in their submission:

A major obstacle to the creation of a 'level playing field' in relation to work bids is the availability of data. If the petroleum tenement holder wishes to bid for a GHGS AP, in competition with a third party who does not have access to site data, the petroleum tenement holder will have a significant informational advantage.

This gives the petroleum tenement holder, which has obtained its tenement for the purpose of operating in the oil and gas exploration and production market, a competitive advantage to entry into the GHGS injection and storage market. This runs counter to general competition principles, and creates a significant barrier to entry into the GHGS injection and storage market.<sup>12</sup>

- 2.27 It has been suggested that petroleum licence holders were at an advantage with respect to the expenditure proposed in their work bids. Monash Energy submitted:

There is the potential for an incumbent petroleum operator who is competing with a new greenhouse gas assessment permit applicant to be at significant advantage in delivering its work bid. Planned activities or even completed operational activities, such as well data/drilling and acquisition of seismic, associated with

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10 Mr Roger Bounds, Monash Energy, *Transcript of Evidence*, 15 July 2008, p. 57.

11 Victorian Government, Submission no. 16, p. 7.

12 ACA/MCA Submission no. 27, p. 27.



petroleum activities conducted under the petroleum licence could also be used, at no or little additional real cost, to support the application for a greenhouse gas assessment permit. This would put the new greenhouse gas assessment permit applicant at a distinct disadvantage. It is important that this imbalance be addressed so that competing parties are competing on an equal footing.<sup>13</sup>

- 2.28 Monash Energy also suggested that the cash bidding process was inappropriate for GHG acreage and should be removed from the legislation:

Cash bidding is unsuitable for greenhouse gas storage exploration. This is particularly so where an aspiring greenhouse gas storage aspirant has access to an available greenhouse gas stream. Cash bidding can encourage speculation or hoarding which is inconsistent with the underlying objective for establishing a greenhouse gas regulatory regime, one of facilitating least cost carbon abatement in Australia. Simply because cash bidding has been retained in respect of petroleum exploration permits is not reason enough to provide a similar process for greenhouse gas assessment permits.<sup>14</sup>

## Committee conclusions

- 2.29 The Committee acknowledges that to ensure legal certainty of access rights, a fair and transparent system of competitive acreage awarding should be implemented.
- 2.30 It is the Committee's belief that the use of work program expenditure alone in determining the most deserving applicant for acreage may not result in an optimal uptake of greenhouse gas injection and storage activities in some situations.
- 2.31 The Committee is concerned, however, that the use of subjective criteria, such as potential future operability, that may or may not be realised, may reduce the transparency in the bid assessment process.
- 2.32 The Committee recognises that there may be a disparity between incumbent petroleum operators and new CCS activities in regional knowledge and access to technical data when devising work bids.

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13 Monash Energy, Submission no. 13, p. 16.

14 Monash Energy, Submission no. 13, p. 18.

- 2.33 The Committee concludes that this information imbalance may influence the outcome of any competitive bid selection process and, therefore, the most appropriate manner to manage this issue will need to be addressed in the development of any work bid assessment criteria.
- 2.34 The Committee is of the view that cash bidding should remain in the legislation to provide opportunities for alternative acreage allocation where work program bidding may not be suitable.

### **Recommendation 5**

- 2.35 The Committee recommends that the criteria established for assessing work bid applications facilitates the uptake of CCS activities while maintaining transparency and consistency.**

## **Tenure timeframes**

- 2.36 The duration of the GHG permits and licences will be significant to the success of the carbon capture and storage industry, as they must be sufficiently long to facilitate GHG operations, but must not be so long as to cause delays to the progress of this new industry.
- 2.37 In the legislation as currently drafted, the duration of a GHG assessment permit is six years from the time at which the offer document is made by the responsible Commonwealth Minister, and cannot be renewed. A holding lease lasts for five years and can be renewed once. A GHG injection licence has no fixed term but is subject to certain conditions: if no injection has occurred in the first five years of an injection licence being issued, the responsible Commonwealth Minister can cancel the licence, or under special circumstances, the licensee may apply for a holding lease, to prevent termination of their licence.
- 2.38 It has been argued that the timeframe of the GHG assessment permit is insufficient for carrying out the assessment activities required to successfully identify a suitable storage formation. Chevron has described the six year duration as ‘an absolute minimum period’, stating in its submission:

We acknowledge the desire in government to prevent holding of assessment permits but suggest that six years would be an absolute minimum period to assess an [area] provided results were as

anticipated. Our experience with appraising the Gorgon Carbon Dioxide Injection Project location has been that it takes a considerable time and effort to fully assess the potential of an area. Chevron would be surprised if the full area under an Assessment Permit could be evaluated during a single six-year period.

For example it is possible to envisage that extensive seismic could be obtained and processed and a single round of drilling undertaken and results interpreted within six years. However, if this round of drilling proved unexpected results that suggested other parts of the Assessment Permit were more prospective, it is arguable that not enough time would be available to assess those other parts of the permit.<sup>15</sup>

2.39 Chevron recommended:

...that a single right of renewal be incorporated in the proposed Bill but be subject to a rigorous test based upon the results achieved to date and the resulting ongoing work program to fully assess the potential within the permit. Areas that have been assessed during the initial term should be required to be surrendered.<sup>16</sup>

2.40 In its submission, Monash Energy points out that while the tenure framework for GHG titles mirrors that for petroleum in most respects, the inability to renew the assessment permit diverts from this parity. They too recommend a single right of renewal for six years:

The term of the greenhouse gas assessment permit is 6 years. However, the right to renew a greenhouse gas assessment permit in a manner similar to that afforded to an exploration permit under the OPA is prohibited for a greenhouse gas assessment permit (Readers' Guide [3.22]). This distinction is odd. A greenhouse gas assessment permit holder needs to implement the work programme which would have been approved at the time of being granted the acreage. To implement such a programme for exploration the greenhouse gas assessment permit holder is required to obtain approval to conduct key greenhouse gas operations, before any actual exploration operations can be conducted. If the greenhouse gas assessment permit title needed to be renewed for valid reasons, reasons akin to those for renewal of a

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15 Chevron, Submission no. 8, p. 3.

16 Chevron, Submission no. 8, p. 3.

petroleum exploration permit, it is difficult to see any policy basis for not allowing renewal.<sup>17</sup>

- 2.41 The Australian Coal Association and the Minerals Council of Australia concurred:

In light of the various other regulatory obligations on a GHGS AP holder, such as approvals for key GHG operations, the need to enter into agreements with petroleum title holders to conduct same, and the actual carrying out of the assessment activities, **it is questionable whether 6 years will be sufficient for a GHGS AP holder to identify an eligible GHG storage formation and obtain declaration of it as an identified GHG storage formation.**

The ACA and MCA submit that **the Bill should make provision for GHGS APs to be renewed**, in the same manner as PEPs may be renewed under the OPA. However the ACA and MCA do not propose that renewals of GHGS APs be subject to relinquishment requirements.<sup>18</sup>

## Committee conclusions

- 2.42 The Committee recognises that the process to identify and assess a suitable GHG storage formation may involve extensive exploration activities over a period of time.
- 2.43 The Committee notes the large consensus in submissions that the duration of an assessment permit as currently prescribed in the draft legislation may not be sufficient to undertake the activities required to secure a suitable storage formation.
- 2.44 Given the imperative for the uptake of CCS activities in Australia, a balance is required between providing sufficient tenure timeframes to assess an area for suitable storage formations and to minimise the risk of speculative acquisition.
- 2.45 The Committee believes that a maximum renewal period of 3 years achieves this balance, subject to regulatory approval of an appropriate work program for this period.

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17 Monash Energy, Submission no. 13, p. 17.

18 ACA/MCA, Submission no. 27, p. 28.

**Recommendation 6**

- 2.46 **The Committee recommends that the legislation be amended to allow for a GHG assessment permit holder to apply for a single right of renewal for a maximum three years duration.**

**s.137 petroleum storage rights**

- 2.47 Section 137 of the *Offshore Petroleum Act*, “Rights conferred by a production licence”, describes the activities that a petroleum production licensee may undertake subject to regulatory approval:

(1) A production licence authorises the licensee, in accordance with the conditions (if any) to which the licence is subject:

- (a) to recover petroleum in the licence area; and
- (b) to recover petroleum from the licence area in another area to which the licensee has lawful access for that purpose; and
- (c) to explore for petroleum in the licence area; and
- (d) to carry on such operations, and execute such works, in the licence area as are necessary for those purposes.

(2) The rights conferred on the licensee by subsection (1) are subject to this Act and the regulations.<sup>19</sup>

- 2.48 It is through Section 137(1)(d) of the OPA that petroleum production licensees may obtain approval to carry out certain activities associated with the exploration for and recovery of petroleum including, under certain circumstances, the injection and storage of CO<sub>2</sub>. The proposed legislation seeks to protect but not expand these current rights to inject and store CO<sub>2</sub> as part of petroleum production activities.

- 2.49 The proposed legislation’s protection of these rights has been endorsed by the petroleum industry. In its submission APPEA stated:

APPEA notes the Bill intends that holders of petroleum production licences would continue to have the ability that they currently have (subject to obtaining normal regulatory approvals) to do whatever

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<sup>19</sup> *Offshore Petroleum Act 2006*, s.137, Rights conferred by production licence, p. 137.

is necessary in the licence area for the purpose of recovering petroleum in the licence area, including injecting methane and/or carbon dioxide in the licence area for gas recycling or enhanced petroleum recovery and (subject to approval) injecting for disposal in the licence area methane or carbon dioxide stripped from the petroleum stream that is recovered in the licence area. APPEA strongly supports the intent of the Bill in this regard...<sup>20</sup>

2.50 ExxonMobil, in its submission, similarly stated its support of the Bill's protection of these existing production licence rights:

It is intended that holders of petroleum production licences will continue to have the ability that they currently have under section 137 of the OPA and (subject to obtaining normal regulatory approvals) to do whatever is necessary in the licence area for the purpose of recovering petroleum in the license area, including:

- Injecting methane and/or carbon dioxide in the licence area for gas recycling or enhanced petroleum recovery; and
- (subject to approval) Injecting for disposal in the licence area methane or carbon dioxide stripped from the petroleum stream that is recovered in the licence area.

ExxonMobil supports the intent of the Bill in this regard...<sup>21</sup>

2.51 APPEA also suggested, however, that these rights be confirmed more explicitly. They put forward the following recommendation:

APPEA recommends the Bill be amended to:

- Confirm that holders of petroleum production licences continue to have the ability that they currently have (subject to obtaining normal regulatory approvals) to do whatever is necessary in the licence area for the purpose of recovering petroleum in the licence area. Specifically, such an ability must include the long-term disposal of carbon dioxide (including incremental investments to dispose of additional carbon dioxide over and above what might otherwise have been required to meet specification or other project limits). APPEA notes that to do anything else would be to remove a right currently enjoyed by pre-commencement title holders<sup>22</sup>

2.52 The proposed legislation also allows a production licensee to apply for the grant of a GHG injection licence within the blocks covered by their production licence, provided there are no existing GHG titles in force in

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20 APPEA, Submission no. 29, p. 5.

21 ExxonMobil, Submission no. 6, p. 13.

22 APPEA, Submission no. 29, p. 20.

the area already. This is a non-competitive allocation process, and the GHG licence may only be used to store any CO<sub>2</sub> that is produced in the course of petroleum production activities as per the intent of s.137 of the OPA.

2.53 This provision in the draft legislation is made to accommodate petroleum production licensees' existing right under the OPA to inject substances, without the requirement for a separate injection title. Offering the option of attaining a GHG injection title allows the petroleum licensee to receive recognition for mitigated emissions under possible external schemes, should such recognition require a GHG licence.

2.54 The Victorian Government suggests, however, that this non-competitive awarding of acreage for GHG storage is problematic:

The Bill enables the holder of a production licence to progress the existence of suitable CCS injection and storage formations situated within the production licence area, through to the grant of a CCS injection licence.

Although all greenhouse gas substances stored in such formations must initially be the by-product of petroleum extracted from within the production licence area, it is seemingly inevitable (from an economic and practical perspective) that, after such petroleum production ceases, storage of 'outside' sourced greenhouse gases will proceed (noting the Bill is silent on this issue).

This regime clearly reduces the ability for a 'greenfield' CCS proponent to compete for access to 'key' CCS storage sites.<sup>23</sup>

2.55 Rio Tinto, in its submission, argued that while it could be suggested that this non-competitive process might impede the transparency of the awarding process, there might also be advantages:

Rio Tinto believes that storage formations are a natural resource and should be subject to transparent, equitable, competitive processes to allocate usage rights to ensure optimal utilisation in the public interest. On that basis, it may be argued that the petroleum licence holder should always be required to win a competitive bid process for the grant of an injection licence. However the CCS industry is immature and the environmental imperative and timeline for emissions mitigation and deployment of CCS does not respect market forces. Consequently government policy in this area need always be framed within the context of a

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23 Victorian Government, Submission no. 16, p. 7.

necessity to facilitate the development of a CCS industry faster than the market would otherwise deliver, and to support the broader government agenda of improving carbon productivity as described by Minister Wong. Further, it is also necessary to consider the current rights of petroleum producers under their production licences and consider, in a pragmatic sense, the risks and opportunities of the natural advantage of the petroleum industry to develop CO<sub>2</sub> storage facilities in association with its current petroleum production activities.<sup>24</sup>

- 2.56 Monash Energy warned in its submission that this non-competitive awarding process could be problematic should petroleum title holders seek to expand their sources of CO<sub>2</sub> outside their own production. They submitted that:

... to safeguard against exploitation of this right, the Bill should be amended to provide that the Minister must have regard to the extent to which the source of the greenhouse gas substances are derived from operations integral to the licence holder's petroleum production operations and the proximity of the same.<sup>25</sup>

- 2.57 Conversely, BP argued in its submission that 'there should be no restriction on the source of CO<sub>2</sub> so as to encourage the greatest uptake of GHGS'.<sup>26</sup>

## Committee conclusions

- 2.58 It is the Committee's conclusion that in the interest of maintaining legal certainty within the petroleum industry the existing right of petroleum production licensees to inject and store CO<sub>2</sub> approved through s.137 of the OPA be preserved.
- 2.59 The Committee believes that inviting petroleum production licence holders to apply for GHG injection licences non-competitively for these GHG storage activities encourages petroleum producers to mitigate their emissions, and is therefore positive.
- 2.60 The application of s.137 of the *Offshore Petroleum Act* to CO<sub>2</sub> injection and storage activities associated with petroleum production should however be clearly defined, and proponents encouraged to seek appropriate GHG

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24 Rio Tinto, Submission no. 9, p. 4.

25 Monash Energy, Submission no. 13, p. 28.

26 BP, Submission no. 12, p. 7.



injection licences for these activities, in an effort to maintain regulatory consistency with the wider GHG injection and storage industry.

- 2.61 The Committee is of the opinion that any approval of injection and storage of GHG under s.137 should be subject to a similar level of technical regulatory assessment as the wider GHG industry approvals process.

### **Recommendation 7**

- 2.62 **The Committee recommends that the GHG injection and storage rights conferred under s.137 of the *Offshore Petroleum Act 2006* be maintained where practical.**

## **Integrated projects**

- 2.63 The right of petroleum production licensees as currently stipulated in Section 137 of the OPA limits the injection of GHG substances to those derived from the same production licence area.
- 2.64 The new GHG legislation does not expand this right to allow for the injection of CO<sub>2</sub> derived elsewhere. The Committee received several submissions to the effect that this undermines 'integrated projects' currently proposed in the oil and gas industry.
- 2.65 These integrated projects are designed to process produced petroleum, removing the CO<sub>2</sub> from a number of licence areas at a central location (most commonly an on shore processing plant). The co-mingled CO<sub>2</sub> from all the combined licence areas would then potentially be returned offshore and re-injected into a storage formation within a single production licence.
- 2.66 In evidence before the Committee, the Department of Resources, Energy and Tourism stated:
- Subject to approval, petroleum operators can already inject and store CO<sub>2</sub> that is derived from production within a production licence as long as it is stored within the same production licence – that is, a single production licence can inject and store its own CO<sub>2</sub>.<sup>27</sup>
- 2.67 The Department agreed, however, that:

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27 Mr. John Miller, DRET, *Transcript of Evidence*, 18 July 2008, p. 33.

It is more economically viable for a number of different production licences with a resource to have their processing at one central facility. Therefore, this is probably the way petroleum rights will go.<sup>28</sup>

- 2.68 ExxonMobil suggested in its submission that the Bill be amended to allow for the injection of GHG substances in licence areas other than that in which it was derived:

A further consideration of injection for business purposes is the recognition that often, CO<sub>2</sub> recovered from production from offshore fields will be recovered by onshore facilities, reflecting a mix of all fields/licences producing to the plant. In such cases, injection for either improved hydrocarbon recovery or disposal will not be on the licence area where the CO<sub>2</sub> was produced. ExxonMobil recommends revising the text of Section 137 (1)(c) to read “in any licence area.”<sup>29</sup>

- 2.69 In evidence, Mr Niegel Grazia, Vice-president, Government Affairs, Woodside Energy, outlined the plans for the Browse development, a large integrated LNG development in the North West Shelf, and the implications should re-injection not be allowed in a centralised licence area:

Woodside is proposing to develop large gas resources offshore from Western Australia and in remote areas in the Northern Territory. ... Large-scale LNG developments such as Browse are world-scale undertakings and involve capital investments likely to exceed \$20 billion. These developments should have the opportunity to sequester greenhouse gases arising from the production stream and processing activities. The bill in its current form limits that opportunity to sequester greenhouse gases arising from the production stream and processing activities.<sup>30</sup>

- 2.70 As the legislation is currently drafted, in order for a petroleum operator to inject GHG substances from multiple licence areas into a single storage location, they would be required to enter a competitive process in order to be granted a GHG injection licence. Mr Grazia argued further, that the commercial viability of their development would be put into question should they be forced to enter into a competitive bidding process:

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28 Mr. John Miller, DRET, *Transcript of Evidence*, 18 July 2008, p. 33.

29 ExxonMobil, Submission no. 6, p. 14.

30 Mr. Niegel Grazia, Woodside Energy, *Transcript of Evidence*, 16 July 2008, pp. 12–13.

Woodside proposes in its submission that integrated petroleum developments be able to sequester greenhouse gases arising from that development, without being subject to competitive bidding for the right to undertake that activity.<sup>31</sup>

2.71 He continued:

While carbon sequestration forms only one part of an integrated petroleum development concept, any risk to obtaining title, including schedule delays arising from competitive bid processes, can adversely impact concept and investment decisions.<sup>32</sup>

2.72 The expansion of the petroleum production licence holder's rights in this respect is likely to have significantly varied results in different offshore regions. The region in which the Browse development is to be undertaken is unlikely to be in high demand from potential onshore or other third party GHG proponents. However, as the Department of Resources, Energy and Tourism pointed out in evidence, in areas such as Bass Strait where there may be extremely high demand for injection acreage, the implications for the expansion of Section 137 rights could be considerable:

If you have a look at the two scenarios ... in the Bass Strait and off the coast of Western Australia – and look at the concept of integrated projects in the north-west of WA, where there is very little onshore competition from sources such as coal, there are clearly defined ownerships, partnerships and joint ventures. These parties have set very good examples on how different entities can work collaboratively in the same area. The concept of an integrated project is a very clean – and could be a rigorously defined – activity that makes logical sense. But at the fringes there is a whole opportunity, I believe, to exploit such a concept and to provide a competitive advantage to an incumbent petroleum holder that could be quite extensive if manipulated in the right way in other areas.<sup>33</sup>

## Committee conclusions

2.73 The Committee notes the significance of emerging integrated projects to the future of the oil and gas industries, and recognises the need to accommodate future GHG storage opportunities associated with these projects.

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31 Mr. Niegel Grazia, Woodside Energy, *Transcript of Evidence*, 16 July 2008, p. 13.

32 Mr. Niegel Grazia, Woodside Energy, *Transcript of Evidence*, 16 July 2008, p. 13.

33 Mr John Miller, DRET, *Transcript of Evidence*, 18 July 2008, p. 34.

- 2.74 The Committee believes it essential that clear criteria for defining integrated projects must be developed that address future petroleum development while minimising opportunities for creative exploitation of production licenses and benefits that may be attached to these projects.

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**Recommendation 8**

- 2.75 **The Committee recommends that the Government review the *Offshore Petroleum Act* and proposed amendments to provide for the development of integrated petroleum projects, including the injection and storage of GHG from multiple sources into a single storage formation.**