

120 Collins Street  
Melbourne 3000  
Australia  
Postal Address:  
GPO Box 384D  
Melbourne 3001  
Australia  
T +61 (0) 3 9283 3333  
F +61 (0) 3 9283 3707

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The Committee Secretary  
Standing Committee on Primary Industries & Resources  
PO Box 6021  
House of Representatives  
Parliament House  
Canberra ACT 2600

30 June 2008

Dear Secretary

**Exposure Draft of the Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill**

Rio Tinto strongly supports the Australian Government's efforts to develop an appropriate regulatory regime for geological storage of greenhouse gases and welcomes the opportunity to comment on the Exposure Draft Bill.

There are two levels at which comment on the Bill are appropriate. The first is the detailed technical/legal review of the drafting to explore how the Bill operates and identify concerns or issues requiring clarification. This is the focus of the Submission made by the Australian Coal Association, to which Rio Tinto contributed and which Rio Tinto endorses. The second level is a consideration of how the Bill supports the broader policy agenda of the Government. Rio Tinto has chosen the latter approach. Consequently, this submission is not a comprehensive legal review of every provision in the Bill. Rather it discusses certain provisions of the Bill and their relevance to supporting the development and deployment of carbon capture and storage technology in Australia.

Rio Tinto is available to appear before the Primary Industries and Resources Committee to discuss this submission if the Committee requests.

Yours sincerely



Stephen Creese  
Managing Director, Rio Tinto Australia

**Rio Tinto Submission to the  
House of Representatives Primary Industries & Resources  
Committee on the  
Exposure Draft of the Offshore Petroleum Amendment (Greenhouse  
Gas Storage) Bill**

**Improving Carbon Productivity**

The Government has clearly and correctly stated that climate change is an economic issue requiring real economic reform<sup>1</sup> and has established a policy agenda centred on responsible economic management. Some elements of the Government's policy agenda were succinctly articulated by the Minister for Climate Change and Water in a speech delivered on 6 June 2008. In this speech, Minister Wong noted that improving carbon productivity is a fundamental part of responsible economic management, and emphasised four imperatives in improving carbon productivity. Those imperatives are:

- Deploying commercial low carbon technologies;
- Developing near-commercial low carbon technologies such as carbon capture and storage and solar technologies requiring effective cooperation between governments, investors and the private sector;
- Achieving fundamental technology breakthroughs such as zero emission electricity requiring major investments in research and development; and
- Moving companies, industry and the economy to a low carbon future.

Minister Wong noted that all of these imperatives depend on long-term investment decisions. Rio Tinto agrees with Minister Wong's observations. Further, the imperatives in improving carbon productivity relate to geological storage of greenhouse gases and provide a useful strategic backdrop against which to consider the Bill. This submission comments on the Bill in that context.

Before considering the Bill, it is useful to briefly outline the significance of carbon capture and storage as one of the near-commercial low carbon technologies that will contribute towards emission reduction in Australia and around the world.

**Carbon capture and storage (CCS) is very important to Australia.**

In 2005, 90% of Australia's electricity was generated from coal and natural gas producing 194MT CO<sub>2</sub>e or 34.7% of national emissions<sup>2</sup>. The Department of Climate Change projects that coal and gas combined will hold a 79% share of the Australian electricity market in 2020 with emissions growing to 200MT CO<sub>2</sub>e.<sup>3</sup> This projection includes the abatement provided by the 20% Renewable Energy Target. Clearly, significantly more than the current suite of measures will be required for Australia to reduce greenhouse gas emissions from its electricity sector consistent with the Government's commitment to reduce total Australian greenhouse gas emissions by 60% below 2000 levels by 2050. CCS is the only technology that can significantly reduce (ie, by 90%) greenhouse gas emissions from the utilisation of fossil fuels. Considering Australia's natural endowment of

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<sup>1</sup> The Hon Penny Wong, 6 June 2008

<sup>2</sup> National Greenhouse Gas Inventory

<sup>3</sup> Department of Climate Change Stationary Energy Sector Greenhouse Gas Emissions Projections 2007

coal and gas and growing demand for power, deployment of CCS must be a significant part of Australia's efforts to reduce emissions from its electricity sector. CCS can equally be applied in other sectors which have large point sources of CO<sub>2</sub> such as gas and oil production and industrial processes requiring the direct combustion of fossil fuels. Further, should Australia choose to utilise its vast coal resources to produce liquid fuels reducing Australia's dependence on oil imports and increasing domestic transport fuel security, CCS will be necessary to deal with the large CO<sub>2</sub> inventory the conversion process creates.

Australia, which accounts for approximately 1.5% of global GHG emissions, can not stabilise atmospheric concentrations of greenhouse gases alone. An international response to the challenge of climate change is required and CCS will be a necessary part of that response. CCS could contribute up to 55% of the global cumulative mitigation effort to 2100 and reduce the cost of mitigation by 30% or more.<sup>4</sup> Accelerating the development and deployment of carbon capture and storage technology is absolutely essential to the global effort to mitigate climate change.

### **The First Imperative - Deploying Commercial Low-Carbon Technologies**

Low emission coal or gas fired electricity generation with carbon capture and storage is not currently commercially viable for a number of reasons that are briefly described in the next section. However geological storage of CO<sub>2</sub> from other sources may be commercially viable at a relatively low carbon price (or even a zero carbon price in anticipation of a near-term carbon price) under specific circumstances. An example is the production of natural gas from a field with high CO<sub>2</sub> content where the CO<sub>2</sub> is stripped from the gas to meet gas product specifications. In these circumstances:

- there is a large, high-purity point source of CO<sub>2</sub> available for geological storage that would otherwise be vented to atmosphere;
- the gas producer has detailed knowledge of the geology within its petroleum production licence area relevant to the characterisation of a greenhouse gas storage formation; and
- some of the gas producer's expertise, personnel and infrastructure can be utilised for CO<sub>2</sub> storage purposes.

Section 249CR of the draft Bill addresses this set of circumstances providing for the responsible Commonwealth Minister to grant an injection licence to a petroleum production licence holder subject to:

1. the applicant beginning injection within 5 years of being granted the licence;
2. all of the CO<sub>2</sub> to be injected being a by-product of petroleum produced within the licence area;
3. meeting the "impacts tests" that provide the Minister with a decision – making framework where there is the potential for interaction between greenhouse gas injection and petroleum production; and
4. meeting all requirements relating to permanent geological storage of CO<sub>2</sub> (including the draft the Site Plan) established in the regulations.

Notably, section 249CR allows existing petroleum producers to utilise suitable storage formations within their production licence area to permanently store CO<sub>2</sub> produced as a

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<sup>4</sup> IPCC Special Report on Carbon Dioxide Capture and Storage, 2005

by-product of petroleum production *without going through the competitive bid process to allocate the right to use the storage formation*. The Readers Guide prepared by the Australian Government Solicitor invites comments on the circumstances in which a petroleum production licensee should be able to obtain an injection licence on a non-competitive basis over blocks in its production licence area.

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 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.

The opportunities arise from the petroleum industry's existing operations, relevant infrastructure and expertise being brought to bear on CCS. Re-injection of by-product CO<sub>2</sub> by petroleum producers can make an early contribution to emissions abatement and carbon productivity improvement. The experience gained is valuable from the perspective of demonstrating geological CO<sub>2</sub> storage, building industry and government experience as well as investor and public confidence in the technology. Such commercial scale applications of geological storage are necessary for the broader commercialisation of CCS.

The risks arise from the potential for rent-seeking, anti-competitive or real-estating behaviour by petroleum producers slowing the development and deployment of CCS and achieving a suboptimal utilisation of Australia's geological storage formations. This in turn would be counter to the Government's policy agenda of improving the carbon productivity of the Australian economy.

It is also necessary to consider how the Bill interacts with the Australian Emissions Trading Scheme (ETS) to ensure a complementary and logically consistent treatment of greenhouse gases. The ETS should recognise a reduced carbon liability or a credit (depending on whether CCS is within scope or out of scope of the ETS) for greenhouse gases that have been permanently geologically stored. To be recognised under the ETS as permanently geologically stored, the injection of the greenhouse gas must have been undertaken in a manner that has been subject to rigorous assessment and which meets all of the Government's requirements relevant to ensuring the long term integrity of the geological storage formation. Thus injection must be undertaken under an Injection Licence into an Identified Greenhouse Gas Storage Formation in order for the ETS to recognise a reduced carbon liability or a carbon credit.

Considering the previous discussion, the table on the next page summarises Rio Tinto's view on whether petroleum producers should be required to win a competitive bid process for the grant of a licence to inject greenhouse gases (GHG) within its petroleum production licence area. It is assumed that that there are no Greenhouse Gas Titles in place over the blocks in question.

Scenario	Competitive Bid Required	Comments
<p>Injection of GHG produced as a by-product of petroleum production, for the purpose of permanent storage within the licence area from which the GHG was produced.</p>	<p>No</p>	<p>Existing right of petroleum producers whilst petroleum is being produced.</p> <p>Identified Greenhouse Gas Storage Formation and Injection Licence are required.</p> <p>Recognised by the ETS as a non-emission if CCS is in-scope or a credit if CCS is out of scope</p> <p>This is a new commercial activity based upon the exploitation of Australia's geological storage resources.</p> <p>Risk of suboptimal utilisation of Australia's geological storage resources is limited by requirement that GHG must be a by-product of petroleum production and can only be injected into the licence area from which it was produced.</p> <p>Benefits from low cost carbon productivity improvement and geological storage demonstration outweigh risks of sub-optimal utilisation of Australia's geological storage resources in the absence of a competitive bid process.</p>
<p>Injection of GHG from a third party source, for the purpose of permanent storage and not for the purpose of EO/GR<sup>5</sup> within a petroleum producers licence area</p>	<p>Yes</p>	<p>Not an existing right of petroleum producers</p> <p>Identified Greenhouse Gas Storage Formation and Injection Licence are required.</p> <p>Recognised by the ETS as a non-emission if CCS is in-scope or a credit if CCS is out of scope</p> <p>This is a new commercial activity based upon the exploitation of Australia's geological storage resources.</p> <p>A competitive bid process is appropriate to ensure optimal utilisation of Australia's geological storage resources.</p>

<sup>5</sup> Enhanced Oil or Gas Recovery

Scenario	Competitive Bid Required	Comments
Injection of GHG from any source, for the purpose EO/GR and not for the purpose of permanent storage within a petroleum producers licence area	No	<p>Existing right of petroleum producers whilst petroleum is being produced.</p> <p>Neither an Identified Greenhouse Gas Storage Formation nor an Injection Licence is required.</p> <p>All GHG are assumed to be emitted to the atmosphere under the ETS.</p>
Injection of GHG from any source, for the purpose EO/GR and for the purpose of permanent storage of some or all of the GHG within a petroleum producers licence area	<p>No during petroleum production.</p> <p>Yes post petroleum production.</p>	<p>Existing right of petroleum producers whilst petroleum is being produced.</p> <p>Identified Greenhouse Gas Storage Formation and Injection Licence are required for the GHG which are to be permanently stored.</p> <p>GHG which are determined to be permanently stored in the Identified Greenhouse Gas Storage Formation are recognised by the ETS as a non-emission if CCS is in-scope or a credit if CCS is out of scope.</p> <p>Post petroleum production:</p> <ul style="list-style-type: none"> <li>• Not an existing right of petroleum producers</li> <li>• This is a new commercial activity based upon the exploitation of Australia's geological storage resources.</li> <li>• A competitive bid process is appropriate to ensure optimal utilisation of Australia's geological storage resources.</li> <li>• All else being equal, the Petroleum producer's natural advantage would probably ensure that it would win the competitive bid process.</li> </ul>

**The Second & Third Imperatives - Developing Near-Commercial Low Carbon Technologies & Achieving Fundamental Technology Breakthroughs**

There is the potential for fundamental technology breakthroughs (eg, new CO<sub>2</sub> capture processes) beyond the commercialisation of existing CCS technologies so it is appropriate to consider the second and third imperatives in improving carbon productivity, as described by Minister Wong, together.

In simple terms, supporting the development of CCS technology means contributing towards overcoming the barriers to its commercial deployment. In November 2007, the International Energy Agency and the Carbon Sequestration Leadership Forum (of which Australia is a member) completed a series of workshops on near term opportunities for CCS. The final report of the workshop identified five specific areas (or barriers) where government action was required to accelerate the development of CCS<sup>6</sup>.

- Technical - the technical challenges associated with scaling up and integrating existing technologies and developing new technologies to improve overall performance;
- Legal/Regulatory – the absence of tested regulation clearly establishing the rights, obligations and liabilities of parties intending to engage in the geological storage of greenhouse gases;
- Commercial/Finance – the risk/reward relationship for CCS currently prevents investment by the private sector at the rate and scale required to meet the environmental imperative of stabilising atmospheric concentrations of GHG
- Public Education & Awareness – the challenge of ensuring the public understands the safety, security and necessity of CCS as one of the low emission technologies going forward and is prepared to accept CCS developments
- International Mechanisms – the absence of agreed international approaches to the quantification and validation of emission reductions through CCS resulting in the lack of recognition for abatement from CCS under the international mechanisms such as the Clean Development Mechanism under the Kyoto Protocol.

The regulatory regime applying to CCS is relevant to all of the barriers identified above, not just to addressing the legal/regulatory barrier. The operation of the regulatory regime is critical in determining the risks and opportunities and hence the commercial viability of potential CCS developments. "Multiple large-scale test and demonstration projects are vital to the future development and deployment of CCS."<sup>7</sup> If the commercial risks are too great, demonstration projects will not proceed to construction and operation delaying the development of the technology and the demonstration of its safety and utility to the public. Mechanisms for the quantification and validation of emission reductions established in the legislation, and the interplay between these processes and the treatment of CCS under the Australian Emissions Trading Scheme will necessarily carry over into Australian Government international diplomacy efforts on international mechanisms. All of the above will be closely examined by investors when considering the long term investment decisions necessary to deploy CCS technology.

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<sup>6</sup> The report was in response to a request from, and made recommendations to, the G8 nations.

<sup>7</sup> Report of the Third IEA/CSLF Workshop on Near Term Opportunities for Carbon Capture and Storage, 2007

To take the Government policy agenda of improving the carbon productivity of the Australian economy forwards, the regulatory regime for CCS must be designed with two objectives in mind:

1. To establish an effective regulatory regime that meets the Government's Best Practice Regulation requirements; and
2. To facilitate the development and deployment of CCS technology.

The draft Bill and the process for its development clearly meet the first objective, but do not meet the second objective. Key opportunities for improving the Bill with respect to playing a positive role in facilitating the development of CCS technology consistent with government priorities are discussed below.

#### Interaction with Petroleum Production

The most prospective areas for geological storage formations are oil and gas provinces. The formations that have trapped oil and gas for millions of years are precisely the same types of formations that would permanently store CO<sub>2</sub>. There is already a great deal of geological knowledge in these areas collected for the purpose of petroleum exploration and production reducing the cost of developing an identified Greenhouse Gas Storage formation. Whilst Australia has many areas where storage formations may be found<sup>8</sup>, petroleum production provinces present the best opportunity for the first CCS developments. We note in particular the Gippsland basin located adjacent to the most carbon intensive brown coal power stations in Australia. The juxtaposition of such a large CO<sub>2</sub> source and a large CO<sub>2</sub> sink is fortunate for Australia, if and only if the legislation governing geological storage is effective in appropriately balancing the interests of the petroleum producers who have invested billions of dollars in infrastructure and exploration, and the fledgling CCS industry, which is seeking to develop and deploy one of the technologies that is essential for mitigating climate change on a global scale. This is a difficult challenge.

#### Serious Risk of Serious Adverse Impact

The Bill establishes a regime to manage the interaction between petroleum production and CO<sub>2</sub> storage that ensures that the pre-existing rights of petroleum producers are protected and gives priority to Australian energy security through protecting future petroleum production. Rio Tinto agrees with this principle however we have some concerns about how it is implemented by the Bill.

The Bill requires that the Minister must not approve a *key greenhouse gas operation*<sup>9</sup> if s/he is convinced that there is a significant risk that the operation will have a serious adverse impact on current or future petroleum recovery, unless the petroleum title holder has agreed. This Serious Risk of Serious Adverse Impact (SROSAI) test is applied wherever there is a potential for conflict between petroleum and CO<sub>2</sub> storage. Notably, it is also applied to approved and ongoing GHG injection operations. Where a GHG title overlaps with a pre-commencement petroleum title<sup>10</sup> and petroleum is discovered in the area of overlap, and where there is a serious risk that the GHG operations will have a serious adverse impact on future commercial recovery of petroleum, the Minister must take any action s/he considers necessary to mitigate or eliminate the risk which may include:

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<sup>8</sup> See various CO2CRC publications on geosequestration

<sup>9</sup> Includes making a well, injecting greenhouse gases, conducting seismic surveys

<sup>10</sup> A petroleum exploration permit, retention lease or production licence in force when the Bill commences and any future petroleum title granted in the same series.



- giving a direction to the GHG injection licensee;
- suspending the injection licence for a fixed period or indefinitely; or
- cancelling the injection licence.

SROSAI is not defined in the Bill, nor is there any guidance as to how the Minister will apply the SROSAI test, or any definition of the rights and obligations of the GHG injection licence holder and the petroleum title holder with respect to the application of the test or decisions taken by the Minister in respect of the test.

The potential for the Minister to cancel a right to inject CO<sub>2</sub>, due to events beyond the licensee's control, after the investment has been made and injection has commenced is a strong disincentive to making the investment in the first place. Further, the absence of a clear definition of the process (including SROSAI) that the Minister will apply in considering whether to cancel the injection licence (or take some other action) significantly reduces the ability of a CCS project developer to understand the risk and develop mitigating strategies. Rio Tinto submits that these deficiencies should be corrected through the inclusion, in the Bill of:

- a definition of Serious Risk of Serious Adverse Impact; and
- a definition of the rights and obligations of the affected greenhouse gas licence holder and petroleum title holder with respect to the application of the SROSAI test and decisions taken by the Minister in respect of the test.

The definition of SROSAI should be a quantitative definition that combines the probability of the impact with the severity of the impact yielding a measure of risk. If that measure of risk was above a defined threshold, then Serious Risk of Serious Adverse Impact would exist.

The impact may arise from the migration of CO<sub>2</sub> into regions where it may directly interact with petroleum production. The impact may also arise from changes in pressure within geological formations caused by CO<sub>2</sub> injection – these pressure changes then interact with petroleum production. It will be possible to use modelling to provide estimates of the probability of these impacts occurring. It will also be possible to develop a quantitative estimate of the severity of the impact using measures that could be defined in the Bill. Illustrative examples of severity measures include:

- the reduction in the recoverable reserves of petroleum; and/or
- the reduction in the recovery rate of petroleum; and/or
- the increase in the cost of recovery of petroleum.

In certain circumstances, the SROSAI test also applies to *Key Petroleum Operations*<sup>11</sup> undertaken under a *Post Commencement Petroleum Title*<sup>12</sup> in respect of impacts on current or future GHG storage operations. The definition of SROSAI needs also to describe the severity measures that would be relevant to impacts arising from petroleum operations on GHG storage activities. Illustrative examples of severity measures include:

- the reduction in the useable storage capacity of the storage formation; and/or
- the reduction in achievable injection rate into the storage formation; and/or

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<sup>11</sup> Includes making a well, injecting or storing a substance, conducting a seismic survey, taking samples, monitoring the behaviour of a stored substance

<sup>12</sup> A petroleum exploration permit, retention lease or production licence in respect of which the initial exploration permit in the series is granted after the commencement of the Bill.

- the increase in the cost of storage in the storage formation.

A significant deficiency in the definition of *Key Petroleum Operations* is that it does not include the production of petroleum. The impact upon GHG injection operations from petroleum production may arise through changes in pressure within geological formations caused by petroleum production – these pressure changes may alter the migration pathway of stored CO<sub>2</sub> with the effect of reducing the volume of CO<sub>2</sub> that can be permanently stored in the formation. Rio Tinto submits that that petroleum production should be added to the definition of *Key Petroleum Operations*.

A definition of SROSAI as recommended in these comments would consider any positive as well as negative impacts of GHG injection on petroleum production (or vice versa). Pressurisation of petroleum production formations due to GHG storage operations can extend or increase production in the right circumstances. Conversely, petroleum production may create additional storage capacity in an Identified GHG Storage Formation. Positive impacts should be considered together with any negative impacts such that the net impact (positive or negative) is the basis for the determination of whether a SROSAI exists. Currently the Bill only considers negative impacts.

#### Access to Data

The determination of whether a SROSAI exists requires the interpretation of data. Where there are competing interests (eg GHG injector and an actual or nominal petroleum producer), there should be a process for ensuring each party has fair access to the data required to make the assessment, the opportunity to present their interpretation to the Minister and the opportunity to challenge the other party's and the Minister's interpretation. This may involve the disclosure of confidential data held by one party to the other under strict confidentiality requirements. A definition of the rights and obligations of the affected parties with respect to the application of the SROSAI test should provide for such a process including the disclosure of relevant data by all parties.

Rio Tinto acknowledges that the Bill makes provision for the review of *reviewable ministerial decisions* by the Administrative Appeals Tribunal however this does not meet the intent of Rio Tinto's submission which is to establish a predictable, transparent and equitable process for the application of the SROSAI test.

#### Directions to Protect Geological Formations Containing Petroleum

Section 249CXA provides for the Minister to give a direction to a GHG injection licence holder for the purpose of eliminating, mitigating or managing the risk that operations could:

- have a significant adverse impact on a geological formation that contains, or is likely to contain, a petroleum pool; or
- otherwise compromise the exploitation of any petroleum that occurs as a natural resource.

The directions the Minister may give are not limited and so may include ceasing operations. They may also be directions to do something inside or outside the GHG injection licence area.

In a similar fashion to the previous discussion on SROSAI, these provisions provide for the Minister to give a direction to a GHG injection licensee, including a direction to cease injection, due to circumstances which may be beyond the licensee's control. Further the

key tests are not defined and there is no guidance as to the process by which the tests will be applied. This significantly reduces the ability of a CCS project developer to understand the risk and develop mitigating strategies, establishing a disincentive to investment.

Rio Tinto submits that the correction of the deficiencies with relation to the definition and application of the SROSAI test should be extended, with any modification required, to section 249CXA, to establish a predictable and transparent system for managing the interaction between GHG injection operations and petroleum production.

### Long Term Liability

The draft Bill does not provide for any limitation of the common law liability of GHG storage operators. The Government has advised, through the Australian Government Solicitor, that it will not intervene on the question of liability and that:

“GHG industry participants will therefore need to make their own arrangements to deal with potential common law liability, as an ordinary cost of doing business, as must members of any other industry.”

Rio Tinto agrees that common law liability should not generally be assumed by governments on behalf of any industry. However it remains a fact that common law liability significantly contributes to the commercial challenge of developing a CCS project. In mature industries, well developed performance standards, operational experience and legal precedent has delivered a sound understanding of potential liabilities and strategies to mitigate them including purchasing insurance. CCS however is not a mature industry. Potential investors can not achieve the level of confidence in strategies to mitigate risks from common law liability for CCS projects that are routinely achieved for investments in mature industries. Unless the commercial challenges can be overcome, CCS projects will not proceed and the technology will not be developed at the rate and scale necessary to meet the environmental imperative of reducing atmospheric greenhouse gas emissions.

At this point it is useful to recall the Government’s policy agenda of “...improving carbon productivity...” of the Australian economy, including “developing near-commercial low carbon technologies such as carbon capture and storage... requiring effective cooperation between governments, investors and the private sector...”; (Minister Wong, 6 June 2008). Given that context, it would be appropriate to explore mechanisms by which the Government, private sector and investors could cooperate to deal with the barrier to CCS established by common law liability. One option that could be considered would be for the Commonwealth to assume, share or limit the long term liability for the first Australian commercial scale projects<sup>13</sup> where the storage of greenhouse gases was undertaken under the amended OPA. Such a provision could be included within the Bill.

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<sup>13</sup> E.g. where injection commences before a year determined in the amended OPA

## **The Fourth Imperative – Moving Companies, Industry and the Economy to a Low Carbon Future**

Carbon capture and storage is one of the low emission technologies that Australia and the world needs to develop and deploy to move to a low carbon future. Legislation governing the geological storage of greenhouse gases is critical to the development of CCS. To be successful in supporting the development and deployment of CCS, the legislation must;

- establish an efficient, equitable, transparent and predictable regulatory regime that provides for the geological storage of greenhouse gases, manages conflicting interests, and meets the expectations of the Australian community; and
- contribute towards overcoming the barriers that currently prevent CCS from being widely deployed.

It is not enough for the legislation simply to regulate geological storage of greenhouse gases. It must also serve the broader purpose of facilitating technology development through encouraging investment as far as is appropriate. The Bill does not currently meet this test.

This submission has identified significant disincentives to investment in CCS projects arising from the Bill. To support the fourth imperative of moving companies, industry and the economy to a low carbon future, amendment to the Bill is required to remove those disincentives.