

Report of the
House of Representatives Standing Committee
on Science and Innovation

Between a rock and a hard place:
The science of geosequestration

AUSTRALIAN GOVERNMENT RESPONSE

Introduction

The Australian Government welcomes the opportunity to respond to the report of the House of Representatives Standing Committee on Science and Innovation, *Between a rock and a hard place* (August 2007).

If the world is to stabilise atmospheric concentrations of greenhouse gases, major changes will be needed in the way we source and use energy. Options that can contribute to reducing emissions include fuel switching, renewable energy technologies and improved energy efficiency. CO₂ capture and geological storage (CCS) is another option with the potential to make significant reductions in emissions of CO₂ into the atmosphere.

Australia has a coal-based energy economy and is the world's largest coal exporter. We are also significant exporters of liquefied natural gas.

CCS technology also offers Australia the opportunity to reduce emissions of greenhouse gases while maintaining international competitiveness and economic growth.

As is clear from the Committee's work, achieving the benefits that could accrue from the introduction of a large-scale CCS industry requires a number of issues to be addressed, including improving the knowledge base on potential storage sites, developing a comprehensive regulatory framework, developing and demonstrating the technology and establishing an economic framework which will encourage the uptake of the technology.

The development of a new CCS industry requires a robust regulatory framework to provide prospective users of the technology with access and property rights for storage sites. The framework must also contain mechanisms to ensure that sites are appropriately selected and managed to ensure safe and secure storage. In addition, it must also address the complex issues associated with other users of the area and the subsurface. The Government has put in place such a framework in areas under its jurisdiction through amendments to the Offshore Petroleum Act 2006 which allow geological storage of greenhouse gases in Commonwealth offshore waters. The Government's *Offshore Petroleum and Greenhouse Gas Storage Act 2006* came into force on 21 November 2008.

The Government is also committed to driving national consistency for the emerging CCS industry in State and Territory jurisdictions, through the Ministerial Council on Mineral and Petroleum Resources.

The Committee also identifies the need for a commercial scale demonstration of all stages of the technology, including capture, transport and storage. The government has initiated a range of measures to deliver this goal, including the \$500 million National Low Emissions Coal Fund which will deliver a number of CCS projects currently in the planning stage. The Fund is one component of the National Low Emissions Coal Initiative which comprises the National Low Emissions Coal Council, the Australian National Low Emissions Coal Research and Development Agency and a national Carbon Storage Taskforce which is undertaking world leading work in

developing a National Carbon Mapping and Infrastructure Plan. Australian Government funding for commercial scale deployment of CCS was a key measure in the 2009 Budget. The CCS Flagships program announced as part of the Clean Energy Initiative provides \$2 billion of new funding to support the development of industrial scale CCS demonstration projects.

The Australian Government is also seeking to accelerate the deployment of fully integrated CCS projects through the establishment of the Global Carbon Capture and Storage Institute which will help facilitate the G8's goal of 20 full scale CCS demonstration plants by 2020. The Australian Government will provide funding of up to \$100 million per annum to the Institute, which is headquartered in Canberra.

The Australian Government has committed to measures to make Australia a world technology leader in CCS, while also supporting the expansion of a wide range of renewable and non-traditional energy sources.

The addition of CCS technology to our energy mix will assist our energy security by enabling our existing electricity generation to continue to operate in a carbon constrained environment and thus assist the adequacy and reliability of electricity supply into the future. By encouraging research, developing regulation and providing support to demonstration projects, the Australian Government is seeking to fast-track the development of an industry which will be a critical component of the global greenhouse gas mitigation effort.

Recommendation 1

Carbon capture and storage

The Committee recommends that the Australian Government provide funding to the CSIRO to progress research being conducted through the CO2CRC to assess the storage potential for permanent CO₂ geosequestration in sedimentary basins in New South Wales, particularly the off-shore Sydney Basin, and the economic viability of these sites.

Government position:

The Government supports the intent of the Committee's recommendation. The Government is investigating national carbon dioxide (CO₂) storage potential and infrastructure options through its \$50 million National Carbon Mapping and Infrastructure Plan.

Comment:

The Government recognises the importance of determining the potential storage capacity of geological formations in key sedimentary basins around Australia.

The Australian Petroleum Cooperative Research Centre (APCRC), an antecedent to the Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC), was responsible for the early work on assessing Australia's potential storage capacity through the GEODISC Program. The aim of the GEODISC Program was to develop a better understanding of the potential of CCS as a greenhouse gas mitigation option, by assessing the technological, environmental and commercial feasibility of geological storage in Australia. As part of this exercise, over 50 sedimentary basins were assessed from a broad regional perspective, while four sites received a more detailed assessment.

While the GEODISC Program made a valuable contribution to Australia's understanding of potential storage opportunities, further detailed work is required to enhance our understanding of the potential storage capacity of geological formations close to large stationary CO₂ sources. This detailed analysis is being undertaken by the Carbon Storage Taskforce.

Carbon Storage Taskforce

The Carbon Storage Taskforce was established to develop a National Carbon Mapping and Infrastructure Plan ("the Plan"). The Plan will provide a roadmap to drive prioritisation of, and access to, a national geological storage capacity to support significant penetration of CCS technologies into the Australian electricity, oil and gas, and industrial sectors.

Membership of the Taskforce includes all key industry sectors with an interest and expertise in carbon storage including coal, power generation, oil and gas, pipeline operators, geological survey agencies, unions and non-government organisations as well as representatives from the Australian and State governments.

Specifically, the Taskforce will:

- examine existing ongoing work across jurisdictions to identify potential carbon storage sites and their proximity to carbon sources;
- identify a priority list of potential storage sites taking into account major sources of CO₂;
- identify broad infrastructure requirements to facilitate CO₂ storage based on current knowledge of source/sink matches;
- identify gaps in existing knowledge in the areas outlined above and any priority areas for future work and/or research;
- identify main priorities for industry;
- identify the potential for the market to develop an adequate national carbon storage and infrastructure capacity, the nature of any market failure and the level and nature of any required government intervention to address such matters;
- examine potential community concerns about carbon storage issues, and make recommendations on potential approaches for addressing them; and
- make recommendations on a forward work program from consideration of the above issues.

Following consideration by the Australian Government and the approval of a forward work program, the Taskforce will oversee the initial implementation arrangements for the Plan which will draw on a coordinated approach between geological survey agencies from the Commonwealth and the States.

NSW Storage

While initial suggestions about the storage potential of sedimentary basins in New South Wales indicated that prospectivity for storage formations of suitable capacity was limited, there were data gaps, particularly in relation to deep geology. Subsequent work has indicated pockets of suitable geology at depths suitable for storage of CO₂. However, no large scale storage formation has been identified in the Darling, Sydney and Gunnedah Basins to date. Given the desirability of finding suitable storage capacity in New South Wales, particularly close to large stationary CO₂ sources, these exploration programs need to be continued. The Australian Government has allocated \$20 million to assist pre-competitive exploration.

An important adjunct to this exploratory activity in NSW is the NCMIP work in investigating how long distance pipelines might be developed to transport CO₂ to distant storage formations. If the economically more attractive option of storing in high quality local formations is not available, the next step is to compare the cost of transport to distant formations with the cost of trying to locate, and then use poorer quality, local reservoirs. This is technically feasible – pipelines already bring gas from the Gippsland and Cooper basins to Sydney. Such an assessment would look at transporting CO₂ to storage formations in Bass Strait, Queensland, and the Cooper Basin. This work will assist in determining the cost/benefit scenarios of pursuing potential storage in the Darling, Gunnedah and Sydney basins.

Recommendation 2

Australian CCS demonstration projects

The Committee recommends that the Australian Government fund one or more large-scale projects which will demonstrate the operation and integration of CCS—capture, transportation and sequestration and monitoring. The Government's assessment of which project(s) will receive funding will be based on a competitive tender process.

Government position:

The Government supports the Committee's recommendation. The Government has provided \$2 billion of new funding in the 2009 Budget to support the development of industrial scale CCS demonstration projects.

Comment:

Australia is a world leader in progressing commercialisation of CCS technologies, with a range of existing research and development and pilot scale work underway. However a number of industrial scale demonstration projects are needed urgently, around the world, to test and refine CCS technologies and economics. The Carbon Sequestration Leadership Forum (CSLF) and the International Energy Agency (IEA) agreed seven recommendations to overcome the hurdles impeding the move to commercial deployment from the current range of pilot scale and laboratory work. These recommendations were endorsed by the G8 in July 2008, which committed to 20 industrial scale (>1 Mtpa storage) CCS projects by 2010 to allow broad deployment by 2020.

The Australian Government subsequently undertook to establish the Global Carbon Capture and Storage Institute to work with governments, industry and other stakeholders to deliver at least 20 projects by 2020. Ongoing funding of up to \$100m per annum will be provided to the Global CCS Institute.

Clean Energy Initiative – CCS Flagships Program

Australia's contribution to the 2020 goal will be assisted by the CCS Flagships program announced as part of the Clean Energy Initiative in the 2009 Budget. This program provides \$2 billion of new funding to support the development of 2-4 industrial scale CCS demonstration projects. The selection process is focussing on projects that are already under consideration by State Governments and industry. States, Territories and Australian Coal Association Low Emission Technology were invited to bring forward projects for consideration by mid August 2009. An Independent Assessment Panel will provide advice to Government on projects to receive funding.

Recommendation 3

The environmental benefits and risks of CCS and public perception

The Committee recommends that the Australian Government implement a rigorous regulatory environmental risk mitigation framework for CCS which covers:

- criteria for CCS site selection and an assessment of the environmental impact at selected sites;
- assessment of the risk of abrupt or gradual leakage, and appropriate response strategies; and
- requirements for long-term site monitoring and reporting.

Government position:

The Government supports the Committee's recommendation.

Comment:

Legislation

The Government's *Offshore Petroleum and Greenhouse Gas Storage Act 2006* came into force on 21 November 2008.

The legislation establishes a new range of offshore titles providing for the transportation by pipeline and injection and storage in geological formations of CO₂ and potentially other greenhouse gases. The legislation deals primarily with the provision of access and property rights for greenhouse gas injection and storage activities in Commonwealth offshore waters and provides a management system for ensuring that storage is safe and secure, while balancing the rights of this new industry with the petroleum industry in a manner that encourages investment in both industries.

The legislation provides a comprehensive framework for addressing the full range of issues associated with the injection and geological storage of greenhouse gases, including:

- management of environmental impacts;
- assessing sites and the risks of leakage from storage sites;
- appropriate mitigation and remediation strategies to address identified risks; and
- monitoring and verification of the stored substance.

Legislation to enable onshore CCS activities is the responsibility of State governments, however the Australian Government has put a high priority on liaison on these matters through the Ministerial Council on Mineral and Petroleum Resources (MCMPR) CCS Working Group. Driving to national consistency is a key task of the Working Group. The status of onshore legislation is as follows.

Victoria: the *Greenhouse Gas Geological Sequestration Act 2008* has come into effect.

Queensland: the *Greenhouse Gas Storage Act* was passed by the Queensland Parliament in February 2009. Commencement of the provisions is expected within a year following the development of regulations and associated processes.

South Australia: Amendments to the existing *Petroleum Act 2000* to strengthen existing gas storage provisions to cover greenhouse gases were tabled on 28 April 2009.

New South Wales: legislation to deal with onshore GHG activities is currently in the consultation and concept phase. Legislation is expected to be progressed within 12 months.

Western Australia: preliminary drafting instructions to enable onshore CCS activities are in the final stages of preparation prior to stakeholder consultation.

Northern Territory and Tasmania: at this stage the Northern Territory and Tasmania are not intending to develop legislation to accommodate CCS as there is limited production of CO₂ and no economically rational storage sites for this limited volume. The Northern Territory and Tasmania are at present simply keeping a watching brief on the development of the national arrangements and if the situation changes, can adapt what is in place nationally at that time.

Environmental Regulation

The Australian Government regulatory framework uses the framework of environmental law that applies to offshore areas that has been proven effective and efficient in relation to offshore petroleum operations. Under these arrangements environmental management is undertaken through the *Environment Protection and Biodiversity Conservation Act (EPBC)* and the *Environment Protection (Sea Dumping) Act 1981* together with the *Petroleum (Submerged Lands) (Management of Environment) Regulations 1999*. Major offshore projects usually require an impact assessment process and conditions are usually applied to the project as an outcome of this process. The existing petroleum regulations are outcome focussed and have been designed to promote the adoption of emerging best practice.

Environmental Guidelines

The Environment Protection and Heritage Council and the MCMPR have developed environmental guidelines for CCS. These Guidelines will promote a comprehensive and nationally consistent approach to environmental assessment of CO₂ capture and storage in geological formations and will assist states and territories to manage the environmental risks posed by this emerging technology.

Site Plan Regulations

Assessing the suitability of storage sites, identifying risks, developing mitigation and remediation strategies and monitoring and verification are all closely related. It is

proposed to meet these requirements through having a detailed site plan approved before injection can commence.

Risk assessment and remediation strategies

The site plan will require the proponent to satisfy the regulator that the risks associated with the project have been identified and that with appropriate mitigation and remediation strategies, these risks have been reduced to levels that are acceptable to the regulator. The plan must also provide for periodic review of risk management strategies to ensure that current best practice is employed and to determine control effectiveness.

An emergency response plan will also be required as part of the site plan. The emergency response plan will outline the appropriate roles and responsibilities of relevant individuals for possible emergency events derived from a systematic risk identification process. The plan should specifically include details on strategies to be adopted in the event of any significant leakage of CO₂ from transport infrastructure and the storage site.

Monitoring

Monitoring and verification is required to ensure the operational safe performance of greenhouse gas transport, injection and storage projects and must form an integral part of storage site management, and hence the site plan.

The site plan will require a plan for monitoring the behaviour of CO₂ in the reservoir. This reservoir monitoring plan must satisfy the regulator that significant events in the reservoir will be detected in a timely fashion to enable any necessary mitigation and remediation activities to be initiated. The proposed plan will require the operator to nominate, to the satisfaction of the regulator, what threshold events will constitute reportable incidents for this purpose. Such thresholds must be in the form of departures from the predicted plume migration path, or migration rates, or other factors that may be relevant.

The site plan must also establish reporting thresholds, acceptable to the regulator, for CO₂ losses from transport, compression and injection, as well as from the storage reservoir, whether by seepage or sudden release. These will be in the form of a set amount in a single incident, and a set amount over a period.

Decommissioning and site closure

Scientific advice is that the behaviour of an injected greenhouse gas substance is likely to change markedly once injection ceases, when migration rates may decrease substantially. It will therefore be necessary to continue to monitor the behaviour of the injected substance after injection ceases so that the community, and markets, can be assured that the greenhouse gas substance is behaving as predicted and that it is not posing any unacceptable risks.

The site plan must therefore contain a plan, satisfactory to the regulator, for the monitoring activities to be undertaken by the operator after injection ceases to the

time of site closure. Requiring the operator to undertake monitoring during this period provides a clear and transparent system for managing issues such as liability. Risks would be assumed by industry in a way analogous to any other industrial process. Moreover, the operator will have both the experience and knowledge to undertake activities in the most cost effective manner.

The purpose of this work is to enable the regulator to compare predictions of the behaviour of the greenhouse gas substance with actual results, in order to inform future regulatory practice and to ensure that no unforeseen events take place. A site closing certificate would not be issued until a high degree of certainty had been attained.

The site plan must also include a plan for post-closure monitoring and verification, which will be undertaken by the regulator. The licensee will also be required to make financial provision for this program in order to receive a site closing certificate.

In addition, as part of the site closing process, the licensee will be required to remove or decommission any structures, plant and equipment, to plug any remaining exploration or injection wells and make good any damage to the seabed and subsoil. This requirement is effectively identical to that placed on the petroleum industry. The site plan must therefore contain a plan, satisfactory to the responsible Commonwealth Minister, for decommissioning structures and equipment and site remediation.

Reporting and verification

To ensure that the integrity of the Carbon Pollution Scheme Reduction (CPRS) is maintained, that Australia's international reporting obligations are met and that public confidence in the geological storage of CO₂ is assured, carbon accounting will be an important consideration in the drafting of regulations for CCS activities, and the final nature of regulation in this area will depend, amongst other things, on the final framework of the CPRS.

Reporting will likely involve a degree of specific requirements, such as the frequency of reports and the nature of information required, to ensure that reporting arrangements are consistent between projects and with national and international data requirements.

Recommendation 4

The economic benefits and costs of CCS

The Committee recommends that the Australian Government, as part of its broader fiscal response to climate change, employ financial incentives, both direct and tax based, in an effort to encourage science and industry to continue developing and testing CCS technology.

Government position:

The Government partially supports the Committee's recommendation. As part of its broader fiscal response to climate change, the Government is currently employing direct and indirect financial assistance in an effort to accelerate the deployment of CCS technologies.

The provision of tax based fiscal assistance may be considered by the Government in the context of the National Low Emissions Coal Council's strategy report, and the Australia's Future Tax System review of the tax system due in December 2009.

Comment:

Government has a key role to play in encouraging research and development (R&D). This role can arise because the market under-invests in basic R&D due to the inability of some individual companies to capture the full economic benefit of their investments. This market failure is experienced to some degree in all R&D, but appears to be particularly apparent in zero- and low-emissions energy technologies (Stern, 2006).

Given our substantial reserves of coal and gas, the Australian Government's response to climate change provides market signals as well as direct support for research, development and demonstration activities to support Australian fossil fuel industries gaining an economically and environmentally sustainable footing. The Australian Government is therefore committed to establishing an economically responsible Carbon Pollution Reduction Scheme (CPRS), with a long term target of cutting emissions by 60 per cent of 2000 levels by 2050.

The long term price signal provided by the Government's CPRS will provide incentives for investment in R&D and early deployment of low-emissions technologies, including CCS. However, the Government recognises that significant challenges remain and it is unlikely that fully integrated CCS plant will be commercially deployed at scale prior to 2020, relying on a price signal alone. Significant cash funding support is therefore being provided for CCS technology development and commercialisation through a number of dedicated programs. In addition to the Clean Energy Initiative described in Recommendation 2 the Australian Government has a comprehensive range of funding already available to develop CCS.

National Low Emissions Coal Initiative (NLECI)

The Australian Government has established the NLECI to provide a framework that will achieve large cuts in greenhouse gas emissions from coal use while enhancing the contribution it makes to Australia's energy security and economic well being. The NLECI is supported by the \$500 million National Low Emissions Coal Fund. This Fund is designed to lever a further billion dollars in investment by other stakeholders in the research, development and demonstration of low emission coal technologies. The Australian Government has committed funding to major elements of the NLECI including:

- \$75 million for a National Low Emissions Coal Research Program;
- \$50 million for a National Carbon Mapping and Infrastructure Plan;
- \$100 million to support two post combustion capture demonstration projects;
- \$50 million for a coal gasification research facility; and
- \$35 million for international collaboration.

A National Low Emissions Coal Council, comprising key Australian government and State officials together with key industry participants representing the coal industry and power generators, has been established to develop a strategic approach which will provide the concerted and coordinated national strategy to bring forward the commercial availability of CCS technologies. A major aim is to have these technologies available to deploy by 2020. This strategy will identify research priorities and priorities for demonstrating these technologies and will be developed by key stakeholders who will be involved in implementing the strategy.

Global Carbon Capture and Storage Institute

Australia has established the Global Carbon Capture and Storage Institute to accelerate the development of CCS technology and pave the way for its commercial deployment across the world through the next decade.

The Global CCS Institute will help facilitate the G8's goal of at least 20 fully integrated industrial-scale demonstration projects by acting as a catalyst for accelerating projects. It will facilitate demonstration projects, and identify and support the necessary research, including regulatory frameworks. It will be a global 'go to' place for the coming together of researchers, industry consortia and government to invest in and develop at-scale CCS projects.

Four broad priority work areas have been identified.

- A focus on facilitating "flagship" demonstration projects. The specific role of the Global CCS Institute in any individual project will be determined on a case-by-case basis.
- Support any research and development necessary to move to commercialisation.
- Support the development of the necessary economic analyses and regulatory frameworks at the level of national governments.

- Communicate information about CCS by becoming the standard setter for objective and authoritative CCS information.

The Australian Government will contribute up to \$100 million per annum towards the Global CCS Institute's operation.

Low Emissions Technology Demonstration Fund (LETDF)

The Australian Government has provided funding through the LETDF to help Australian firms commercialise world-leading low emissions technologies. The objective of the \$500 million LETDF is to deliver long term large-scale greenhouse gas emission reductions, through:

- demonstrating the commercial potential of new energy technologies or processes;
- the application of overseas technologies or processes to Australian circumstances.

Funding has been approved under this program for the following projects.

Gorgon Liquefied Natural Gas Project

The Australian Government has contributed \$60 million to the Gorgon Joint Venture CO₂ injection project in Western Australia. This project involves the development of a commercial project which will capture and store CO₂ from the reservoir gas produced from the Greater Gorgon fields. It will be the largest storage project in the world. The project will also involve compression and dehydration of the CO₂, transportation by pipeline to the injection site in a saline aquifer and monitoring of the injected CO₂ to ensure its safe storage.

Callide A Power Station

The Australian Government has contributed \$50 million to CS Energy's Callide A coal-fired power station oxy-firing demonstration and geosequestration project in Queensland. The project involves the retrofit of a unit at an existing power station. The five-year technology demonstration project commenced operations in late 2008 and will store 17,000 tonnes per annum of CO₂ for up to three years.

HRL Limited: 400 MW IDGCC Clean Coal Demonstration Project

The Australian Government is contributing \$100 million to the demonstration of new technology for integrated drying and gasification of moist reactive coals, including brown coal, to produce power at a higher efficiency than conventional power plants, with an estimated 30 percent lower cost of electricity production, 30 percent less CO₂ emissions, and 50 percent less water consumption. The project will be at Loy Yang in Victoria.

Hazelwood

The Australian Government is contributing \$50 million to International Power's demonstration of technology to dry brown coal that is used as the feedstock for one of the boilers at the Hazelwood power station in the Latrobe Valley in Victoria. The coal drying demonstration project will be completed by the end of 2009.

Australian Research Centres

Australia has developed good expertise in CCS technologies in recent years through its world class research centres, including the Cooperative Research Centre for Coal in Sustainable Development, the Centre for Low Emission Technology, the Cooperative Research Centre for Greenhouse Gas Technologies and the Commonwealth Scientific and Industrial Research Organisation.

Recommendation 5

Legislative and regulatory framework

The Committee recommends that the Australian Government, following industry consultation, develop legislation to define the financial liability and ongoing monitoring responsibilities at a geosequestration site.

The Committee recommends that financial liability and site responsibility should consist of three phases:

1. Full financial liability and responsibility for site safety and monitoring should rest with industry operators for the injection phase and a subsequent length of time (this time to be determined by the Australian Government subject to specific site risk analysis);
2. Following the above specified time, shared financial liability and responsibility for site safety and monitoring should rest equally with industry operators and state, territory and Australian governments in the longer term. The exact length of this shared responsibility and liability phase should be determined by the governments subject to specific site risk analysis; and
3. Following the determined phase of shared liability and responsibility, full financial liability and responsibility for site safety and monitoring should be transferred to the two spheres of government in perpetuity.

Government position:

The Government accepts the intent of this recommendation.

Comment:

As noted in recommendation 3, onshore CCS activity is the legislative responsibility of State and Territory governments. The Australian Government's *Offshore Petroleum and Greenhouse Gas Storage Act 2006* came into force on 21 November 2008.

The liability model adopted in the legislation works in the following manner.

1. During injection and until such time afterwards when the regulator is satisfied that the injected substance is behaving as expected, full financial liability and responsibility would rest with industry operators.
2. Once injection ceases, the injection licensee will be required to undertake a post-injection work program and apply for a closing certificate. The Minister must make a decision within five years on whether to grant this certificate, and will only grant if post injection monitoring shows that the stored substance does not pose a significant risk to human health or the environment.

Before the closure certificate is issued, the licensee will have to conduct extensive monitoring and verification of the behaviour of the injected

substance, in order that reliable predictions can be made as to its potential migration and interaction with the surrounding geological structures. During this period, the licensee may be required to undertake precautionary or remedial work to prevent or mitigate harmful effects on the geotechnical integrity of the storage site. This will include any necessary measures to avoid damage to natural resources. The objective during this phase will be for the licensee to satisfy the regulator that all reasonable possibilities have been provided for.

As part of the site closing process, the licensee will be required to remove or decommission any structures, plant and equipment, to plug any remaining exploration or injection wells and make good any damage to the seabed and subsoil. Finally, the licensee will be required to make financial provision for a program of post site closure monitoring and verification. The purpose of this work is to enable the regulator to compare predictions of CO₂ behaviour with actual results, in order to inform future regulatory practice and to build community acceptance.

3. Upon the issue of the closing certificate the title holder's statutory obligations cease for the site and the licensee can vacate the site. All securities (except any that have been forfeited) will be returned.
4. Common law liabilities associated with the storage, however, remain with the licensee for at least 15 years after the closing certificate is issued. If at the end of the 15 year period, the behaviour of the stored substance remains as predicted, the Australian Government will take over common law liabilities.

This model provides a mechanism by which liability will be transferred to government over a specified period, but subject to conditions being met which ensure that the stored carbon dioxide is behaving in a manner which does not pose significant risks to human health or the environment.

Arrangements for liabilities for releases of greenhouse gases to the atmosphere, in terms of their contribution to climate change, will be determined during the process of developing the Government's Carbon Pollution Reduction Scheme.