

Agreement in Principle

Mr BARRY COLLIER (Miranda—Parliamentary Secretary) [10.26 p.m.]: I move:

That this bill be now agreed to in principle.

The Greenhouse Gas Storage Bill 2010 represents an important and significant step by the New South Wales Government to reduce greenhouse gas emissions in this State. The bill establishes a regulatory framework for the injection and permanent storage of greenhouse gases, such as carbon dioxide, in deep underground geological reservoirs. This Government is committed to reducing the State's greenhouse gas emissions to 60 per cent of year 2000 levels by 2050. Greenhouse gas injection and storage has the potential to make a significant contribution to the reduction of our emissions. The storage of greenhouse gases has particular relevance for New South Wales, because we generate nearly 90 per cent of our electricity from coal-fired power stations. Energy generated from coal is efficient, safe, reliable and relatively cheap, but the process emits around 63 million tonnes of greenhouse gases into the atmosphere each year.

New South Wales is also home to important industries that require substantial amounts of energy to manufacture products such as steel, aluminium, and cement. Greenhouse gas storage technologies will play a significant role in providing reliable, and environmentally sustainable, electricity in a future carbon-constrained world. These technologies have the potential to eliminate the majority of emissions from coal-fired power stations. The technology for the individual components for greenhouse gas capture and storage is well understood. Compression, transport, injection and underground storage of gases for industrial purposes already takes place, and has done so for a considerable time. At the Weyburn project in Canada, it is anticipated that 35 million tonnes of carbon dioxide will be permanently sequestered by 2035.

Sleipner, off the coast of Norway, is another example. It is the world's largest carbon dioxide storage, with one million tonnes of carbon dioxide being buried yearly for the past 10 years. In addition, the Otway demonstration project in Western Victoria is showing how all the steps for greenhouse gas storage work together. New South Wales has its own demonstration project underway. The Delta Demonstration Project aims to demonstrate post-combustion capture, transport and permanent storage of carbon dioxide emitted from a coal-fired power station. The passage of this legislation is essential for this project to proceed.

New South Wales will not be the first to legislate for the injection and permanent storage of greenhouse gases. The Commonwealth, Queensland, Victoria and South Australia already have legislation in place. In addition, the Ministerial Council on Mineral and Petroleum Resources has developed the Australian Regulatory Guiding Principles for Carbon Dioxide Capture and Geological Storage to ensure a consistent national policy approach. The regulatory guiding principles make it clear that the welfare of the community and the environment must be primary considerations in any regulatory framework. The principles emphasise the need for clear processes for the monitoring and verification of stored gases in order to effectively manage any environmental, health and safety or economic risks. The principles also recommend that any regulatory framework should provide certainty for existing titleholders of both surface and sub-surface rights.

The Greenhouse Gas Storage Bill 2010 is consistent with the ministerial council's regulatory guiding principles. In keeping with those principles the bill draws on the regulatory framework in the Mining Act 1992. There are, however, some key regulatory differences between this bill and the Mining Act. These are necessary to deal with the long-term geological storage of gases deep below the earth's surface. They include: a process for assessing the capacity of potential storage reservoirs; a process for monitoring gases and site closure; and a framework to deal with long-term liability. I turn now to the provisions in the bill.

The bill establishes a rigorous process to determine whether a geological reservoir is suitable for the permanent storage of greenhouse gases. An "approved reservoir" is a geological formation that the Minister has declared to be suitable for the permanent storage of greenhouse gases. A reservoir will need to be approved for permanent storage before an injection project can proceed. Generally speaking, such a reservoir would be more than 800 metres underground. When seeking to have a reservoir approved for storage, an applicant will be required to satisfy an extensive technical assessment. The Minister will be able to call on technical experts to assist in the assessment by appointing an expert advisory panel to investigate and report on reservoir potential. Before making a declaration, the Minister must also consult with the Minister for Water on the hydrogeological and geochemical characteristics of the reservoir, and the land in which it is located.

In addition, the Minister must ensure that there are no competing interests that would conflict with the exercise of rights under an injection lease. A "competing interest" is defined as an existing petroleum or mining title over the land in which the reservoir is located. The legislation encourages applicants for an approved reservoir to enter into an agreement with existing titleholders to resolve any competing interests. The resource potential of an area can be maximised by allowing titles to coexist. For example, the parties may be able to agree on different time frames for their projects or may be able to work in different rock strata. Currently, under existing mining and petroleum legislation, the Minister has the power to cancel part of a title if this is in the public interest. The bill

proposes that this power could be used if it is in the public interest to grant an injection lease over land that is subject to a competing petroleum or mining title. Such a situation could arise if, for example, the number of appropriate reservoirs available in New South Wales proves to be limited.

The bill makes it clear when a reservoir cannot be declared as an approved reservoir. A reservoir is not suitable for the permanent storage of greenhouse gases if there is any risk of the gases escaping into the atmosphere in quantities that could have a detrimental effect on public health and safety or on the environment. A further important provision relating to reservoirs is also provided for in the bill. With mining or with petroleum extraction, once the land is rehabilitated it again becomes the responsibility of the landholder. Given that greenhouse gases are stored permanently in the land the bill provides that approved reservoirs are the property of the Crown. This will ensure that landholders do not bear any liability for the stored gases.

The bill establishes a system of greenhouse gas authorities. These authorities will provide for the orderly administration of the industry, just as mining and petroleum authorities do for those industries. Authorities provide certainty for industry and for landholders by making their rights and responsibilities clear. Greenhouse gas authorities will provide for the responsible management of activities associated with this new industry through the application of statutory and administrative conditions. Authority holders will be required to meet requirements regarding public health and safety, protection of the environment, and reporting at every stage of a project. The three main authorities in the bill provide for prospecting or exploration, an assessment or holding stage, and for the injection of gases into an approved reservoir.

Prospecting permits will allow companies to carry out the necessary exploratory work to locate viable geological formations for the permanent storage of greenhouse gases. There will be two classes of assessment leases. A class 1 assessment lease will allow the authority holder to retain rights over an area where an approved reservoir has been declared. It will allow an authority holder time to locate a commercial source of greenhouse gas if one is not available when the reservoir is approved. A class 2 assessment lease will allow an authority holder to retain rights over an area where a potential reservoir has been declared, but a competing interest prevents injection activities proceeding.

Injection leases enable the work involved in injecting carbon dioxide and other greenhouse gases into approved reservoirs to be carried out. There are several critical requirements that must be satisfied before the Minister can grant an injection lease. As the House has already heard, first, the relevant reservoir must be approved for the permanent storage of greenhouse gases. Secondly, the proposed lessee must lodge an application that includes the necessary plans: an operational plan, and site plans and site closure plans for each injection site. The operational plan covers the entire area of an injection lease and sets out the planned injection and monitoring work that will be undertaken. The plan must also identify what measures will be taken, first, to protect the health and safety of those employed in the area and the general public; secondly, to protect the environment; and, thirdly, to rehabilitate the area when injection and monitoring work has been completed.

The site plan will identify the injection and monitoring plant that is required for each injection site. The site closure plan will identify how an injection site will be closed once injection work ceases. The plan must include what measures are to be taken, first, to decommission and remove the injection plant; secondly, to plug or seal any underground bores or shafts; and, thirdly, to rehabilitate the site. The plan will also need to detail how the gases should be behaving during the closure period and what monitoring plant will continue to monitor the gases after the injection site has been closed. The Minister must be satisfied that the proposed operational plan and the proposed site closure plans contain appropriate measures to protect public health and safety and the environment before an injection lease can be granted. Finally, the injection project will need approval under Part 3A of the Environmental Planning and Assessment Act 1979 before an injection lease can be granted.

The legislation also proposes two further authorities: a supplementary authority and a research permit. A supplementary authority allows a person to carry out additional work in an area outside the greenhouse gas authority with which it is associated. For example, a supplementary authority might be needed by an injection lease holder to monitor how the injected gases are behaving in area that is outside the injection lease. The purpose of a research permit is to allow pre-competitive prospecting work to be carried out by universities or government. The legislation will provide for the orderly allocation of authorities. It will do this by providing for the Minister to invite applications, through a tender process, for prospecting, assessment or injection authorities over specified land. Authorities will be granted to the applicant who best meets the requirements in the invitation. However, before granting an authority the Minister must be satisfied that the applicant has the resources and expertise to carry out the relevant work. The bill also provides for the Minister to invite applications from specific people or companies. This will facilitate pilot and demonstration projects in the short term.

I now turn to the process in the bill which deals with the closure of injection sites. This process is necessarily a rigorous one to ensure that the injected gases are behaving as predicted. This is important to ensure public health and safety. It is also important because the bill provides for the Crown to assume liability for the stored gases once an injection lease is cancelled. On completion of the closing down of an injection site in accordance with the site closure plan, the leaseholder may apply to the Minister for a site closure certificate. The Minister can issue a certificate only if he or she is satisfied that the injection site has been closed in accordance with the closure plan. In addition, the Minister must be satisfied that the stored gases are behaving as predicted in the

site closure plan.

The Minister is able to establish an expert advisory panel to investigate and report on matters associated with the site closure process. If not satisfied that the gases are behaving as predicted, the Minister can direct the leaseholder to carry out certain work to control the behaviour of the gases. In such circumstances, the Minister can delay the issue of a site closure certificate. It is anticipated that the site closure process may take some years, given the nature of the requirements that must be satisfied before a site closure certificate can be issued. Once a site closure certificate is granted for each of the injection sites in the lease area, the leaseholder can apply for the injection lease to be cancelled. Once the injection lease is cancelled, the Crown will assume long-term liability for the stored gases.

It is for this reason that the site closure certificate and cancellation processes must be rigorous. They are designed to ensure that the integrity of the reservoir and the behaviour of the stored gases have been fully assessed before the Crown assumes liability. Until the lease is cancelled, the leaseholder remains responsible for the gases. The bill provides that leaseholders will indemnify the Crown in relation to any liability incurred by the Crown arising as a result of the leaseholder's fraud or negligence. However, it is not considered reasonable or practical that where leaseholders have fulfilled all obligations under the legislation they remain responsible for the stored gases in perpetuity. The assumption of long-term liability by the Crown and associated long-term monitoring of the stored gases are the basis for a further provision in the bill.

Monitoring equipment and bores will become critical infrastructure for the State to effectively monitor stored gases in the interests of public health and safety. Given that monitoring is likely to be required for generations to come, acquisition of the land on which monitoring sites are located may be required in some circumstances. The bill, therefore, provides a power for the Minister to acquire land by agreement or compulsory process, in accordance with the Land Acquisition (Just Terms Compensation) Act 1991. The areas of land that may need to be acquired for monitoring are likely to be small and will have been utilised by the injection lease holder for monitoring for many years. However, the Government is committed to ensuring that affected landholders are on notice from the earliest point possible in the process that their land may be permanently required for monitoring. In this regard, the Minister will be required to notify affected landholders during the injection lease application process.

The bill provides for the establishment of a statutory Greenhouse Gas Safety Fund, which will be funded by industry. This fund will be used to cover any unforeseen liabilities arising after the lease has been cancelled, when the State becomes responsible for the reservoir and the stored gases. The Greenhouse Gas Safety Fund will be used to cover the costs that may be incurred by the State in the future. These costs include monitoring stored gases, maintaining and operating a monitoring plant, the acquisition of monitoring sites and covering any unfunded liabilities. The fund will also be available to cover the cost of work by the Government to address a situation where a leaseholder has failed to comply with a direction.

I make it very clear to the House that the surface land use impacts of greenhouse gas injection will be very minimal. Injection sites will be similar in size to petroleum wells. Monitoring sites will vary in size from a bore with monitoring equipment to a site at which computer equipment will be used to take samples from time to time. In addition, the number of viable reservoirs that are expected to be identified throughout the State may be limited. The storage of greenhouse gases will not take place under or on the surface of national parks.

Importantly, the bill makes provision for the rights of landholders. These rights are modelled on those in the Mining Act 1992. The holder of a prospecting licence, assessment lease or injection lease will be able to carry out prospecting work only in accordance with an access agreement. An access arrangement is an agreement negotiated between the greenhouse gas authority holder and the owner of the land. Where an agreement for access between a landowner and an authority holder cannot be reached, provision is made for arbitration. Further, either party may apply to the Land and Environment Court for a review of an arbitrator's determination. The bill also provides that an injection site cannot be constructed over land on which a dwelling house, garden or other significant improvement is located without the prior written consent of the owner. If the occupant of the house is not the owner, that person's consent must also be obtained.

Landholders will be entitled, as they are under the Mining Act, to fair compensation if their interests are adversely affected by the exercise of rights under a greenhouse gas authority. The bill provides a framework for an authority holder and land owner to negotiate an agreement in relation to compensation. If this fails, either party in the case of an access arrangement may proceed to arbitration or otherwise seek an assessment by the Land and Environment Court. The compensation assessment procedures are set out in the bill.

I now turn to the issue of enforcement. It is critical that a bill of this nature has a robust compliance and enforcement framework. These powers reinforce community confidence in the legislation. The enforcement and compliance framework in the bill reflects that of the Mining Act 1992, as amended by the Mining Amendment Act 2008. Firstly, the bill requires greenhouse gas authority holders to notify the director general in the event of a "serious situation". Appropriately high penalties, similar to those in the Protection of the Environment Operations Act 1997, apply if an authority holder fails to meet this obligation.

A serious situation exists if greenhouse gas appears to be leaking, or is about to leak, from a reservoir or the equipment used to inject the gas into the reservoir. A serious situation also exists if the stored gas is behaving, or is about to behave, otherwise than as predicted in the operational plan. In addition, a serious situation exists if the integrity of the reservoir has been compromised, or the reservoir is no longer suitable for permanent storage of greenhouse gases. The director general has the power to direct an authority holder to rectify a serious situation.

The bill also provides for the director general to direct an authority holder to give effect to a condition of an authority. A direction can be given to an authority holder to address any adverse impact from activities under the authority, or the risk of such impacts, on public health and safety or the environment. As well, directions may be given to conserve the environment or to rehabilitate any land or water affected by activities. The director general will also have the power to suspend greenhouse gas storage operations in certain situations. The bill further provides for the powers of inspectors to ensure authority holders' compliance with the legislation.

As well, the Minister may impose a mandatory audit condition on an injection lease requiring one or more audits to be undertaken. The purpose of a mandatory audit is to ensure compliance with the obligations under a lease or any other requirements under the bill or other Act or law. A mandatory audit is a documented evaluation of the work carried out under an injection lease and can include an examination of management practices, systems and plant. The bill seeks to reinforce compliance by providing for indictable and summary offences. Indictable offences include interference with injection or monitoring plant or injection or monitoring work, as well as a failure to report a serious situation.

The greatest penalty amount—\$1 million—is proposed where there is a failure to report a serious situation on the part of a corporation. This penalty reflects the potential for serious risk to the environment to occur if such an offence is committed. In addition, if injection activities take place without the authority of an injection lease or if a gas leak occurs contrary to the terms of an injection lease, the full range of offences and penalties under the Protection of the Environment Operations Act 1997 will apply.

The community should have access to data on storage sites and the gases stored. To this end the bill provides that the director general must keep records relating to all greenhouse gas authorities and applications. The records will be made available for inspection by the public. The bill also requires the director general to maintain various registers: a register of reservoirs, a register of interests and a register of greenhouse gas authorities. All of these registers will be available for inspection by members of the public. The bill provides for financial obligations for authority applicants and holders. Before an application will be processed applicants will be required to pay a fee to cover administration costs.

In addition, as part of the grant of an authority, a security deposit must be lodged against failure to meet certain obligations. These obligations include the closure of injection sites; maintaining and operating permanent monitoring plant; and satisfactorily completing surface rehabilitation. Once the relevant obligations are completed the security will be returned. In addition, the bill enables a royalty to be imposed on the quantity of gases injected into a reservoir. The payment of a royalty acknowledges the value of the State's resource that is being accessed. It also ensures that the community shares in any profits associated with the use of the resource. The regulations will prescribe the rate at which the royalty is to be payable.

The Government is mindful at this stage that a royalty may operate as a disincentive to storage in the short term. Greenhouse gas injection and storage is an emerging technology which, if proven commercially viable, has the potential to provide significant benefits to the State. On this basis, the Government will consider initially setting the royalty at a level that will facilitate innovation and investment in the technology. The Government's greenhouse gas injection and storage policy and the legislation arising from the policy have been extensive. The Government released a detailed position paper in August this year for public comment. The position paper clearly set out the legislative framework that is the basis for this bill.

The Government received seven submissions. Four submissions were received from industry groups and three were received from Commonwealth Government agencies. All of the submissions were supportive of this Government's approach. In addition, the Department of Industry and Investment has consulted with other agencies over the course of the last year in developing the bill. This was particularly important to ensure the legislation is effectively integrated with existing legislation such as the Environmental Planning and Assessment Act 1979 and the Protection of the Environment Operations Act 1997. The department will continue to work with other agencies, industry and the community in the development of regulations to support the legislation in 2011.

This proposed legislation marks a significant step by this Government in its goal to reduce greenhouse gas emissions. The Greenhouse Gas Storage Bill 2010 provides a responsible, effective and practical regulatory framework for the storage of greenhouse gases in approved underground reservoirs. It takes all the necessary precautions to ensure public health and safety and the protection of the environment. It will also confirm New South Wales as an active participant in developing, testing, and embedding methods and technologies for greenhouse gas injection and storage. In this regard it will position New South Wales alongside the Commonwealth and other States, such as Queensland and Victoria. Greenhouse gas injection and storage can provide an effective, long-term solution to emissions from stationary power sources in New South Wales. This is

important to enable New South Wales to continue to provide reliable and relatively cheap electricity while significantly reducing the impacts on the environment from greenhouse gas emissions. I commend the bill to the House.