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**OFFSHORE PETROLEUM (ANNUAL FEES) AMENDMENT
(GREENHOUSE GAS STORAGE) BILL 2008**

Ms GRIERSON (Newcastle) (5.03 p.m.)—I rise to speak on the [Offshore Petroleum \(Annual Fees\) Amendment \(Greenhouse Gas Storage\) Bill 2008](#) and cognate bills. The main bill we are considering here today will establish a new range of offshore titles for the transportation by pipeline and injection and storage in geological formations of carbon dioxide and, potentially, other greenhouse gases. The government has chosen to amend the Offshore Petroleum Act because the types of geological formations that have stored oil and gas will likely be the same kinds of formations in which greenhouse gases can potentially be stored. Through these amendments we are seeking to balance the rights of those who seek to store greenhouse gases with the rights of those in the petroleum industry. The key aims of this legislation are to provide greenhouse gas injection and storage proponents with the certainty needed to bring forward investment, to preserve pre-existing rights of the petroleum industry as far as possible and to provide assurance to the community that CO₂ is stored in a safe and secure way. The bill deals mainly with access and property rights for greenhouse gas injection and storage activities in Commonwealth offshore waters. The three associated bills deal with fees and charges in a similar fashion to the fees and charges associated with the petroleum and oil industries. Importantly, the legislation confers on the responsible Commonwealth minister a range of powers for dealing with situations where injection and storage does not go as planned. This means that, if something is going wrong or has the potential to go wrong, the minister has the power to direct an injection licensee to, for example, modify injection rates, undertake mediation work or cease injection.

When it comes to liability, this legislation treats the issue in the same manner as existing offshore petroleum production activities—that is, this law will not immunise greenhouse gas titleholders, or other participants, from common law liability to persons who suffer injury or loss as a result of their actions. Participants in the industry, like those in any other industry, will need to make their own arrangements to cover any potential common law liability. The buck stops with them. The Commonwealth will not take over any long-term liability. However, if for some reason the damages were not recoverable—for example, after an extended passage of time—the community would effectively bear the costs of any damage.

The amendments to the Offshore Petroleum Act in this bill are designed to establish a framework similar to that operating around the offshore petroleum industry. They are designed to give certainty to organisations looking to participate in a new carbon

capture and storage industry—because there will be an industry developed around the storage of greenhouse gases. That is already arising. Our scientists are currently working on cutting-edge carbon capture and storage technologies, and several large-scale projects are already considering their requirements for geological storage. That is why this legislation is so important: to create a regime that gives certainty and puts in place arrangements that let these research and commercial projects continue. When a price is imposed on carbon by an emissions trading scheme, it may become financially viable for businesses to establish themselves as waste disposal services for CO₂—that is, they will be able to charge CO₂ emitters for collecting and burying their emissions.

What we have in this legislation is a framework for the development of a carbon storage industry. To highlight why it is so important, we only have to look at the report *Australia's national greenhouse accounts*. While the figures in that report show that we are on track to meet our Kyoto target, they also show that we still have a great deal to do to reduce greenhouse emissions. Our emissions in 2007 are estimated to have grown to 585 million tonnes—an increase of 1.6 per cent on 2006. Significantly, growth in energy use has seen energy related emissions increase by 12 million tonnes to 378 million tonnes.

In 2006, our emissions were 4.2 per cent higher than 1990 levels. We have set a target of reducing emissions by 60 per cent of 2000 levels by 2050. Fortunately, the Rudd government takes its responsibility to fight climate change seriously. Carbon capture and storage is a very important part of the policy suite we have developed for this purpose. The International Energy Agency estimates that CO₂ capture and geological storage has the second largest potential, behind energy efficiency itself, to achieve deep cuts in CO₂ emissions. The storage formations in offshore waters made available by this legislation have the potential to securely store hundreds of millions of tonnes of CO₂ for many thousands of years. We could store around 25 per cent of our annual CO₂ emissions offshore. These are significant figures which would make a real difference in the fight against climate change, which is why it is so important to get this legislation right.

I am pleased to note the tabling of the report of the inquiry into this legislation by the House of Representatives Standing Committee on Primary Industries and Resources. That report was presented on 1 September. I am also very pleased to note that the bipartisan report strongly supported the government's approach to a carbon capture and storage framework. We are introducing amendments to the bill in the consideration in detail stage that will give effect to 17 of the committee's 19 recommendations. These amendments will make the regulatory framework established by this legislation even more robust and effective. I must say that it is refreshing to see committee recommendations being seriously considered by this new government. It certainly was not something we saw much of under the Howard government. For their constructive approach and the contribution they made to getting this legislation right, I particularly commend the chair of the committee, the member for Lyons, Dick Adams, and the Minister for Resources and Energy, Martin Ferguson.

A carbon capture and storage framework that helps reduce greenhouse gases while maintaining our nation's competitive advantage in fuels such as coal and gas will be

very good news for the future of my own region—Newcastle and the Hunter Valley. Eighty-three per cent of this nation's electricity is generated from coal, so cleaning it up is essential for Australia. My region—the Hunter Valley, Newcastle and the Central Coast—is one of the centres of this electricity generation. It is also the centre of coalmining in New South Wales. Apart from some of the extremists in the climate change debate, people in my region know that the Hunter's coal industry has a big role to play in our economic future, but we also know that we have to do it in a cleaner way.

Carbon capture and storage technology is one of the most important avenues we need to explore if we are going to keep our coal industry viable in a carbon constrained world. By creating an environment in which industry can confidently invest in carbon capture and storage projects, we are encouraging the commercialisation of technologies that move us ever closer to our aim of a sustainable energy future for our region and our nation. The jobs of around 8,000 people in the coal industry in the Hunter depend on us getting it right. I think there are about another 20,000 jobs that depend indirectly on that coalmining effort. We exported 88 million tonnes of coal out of the Port of Newcastle last year. We are planning to reach 100 million tonnes of coal in the near future. This is vital economic activity.

As Minister Ferguson pointed out in his second reading speech, if we can use the carbon storage framework to encourage local innovation in carbon capture and storage technology then we can export this technology to the world. China and India, in particular, are undergoing rapid industrialisation. Those nations are not going to stop developing. Indeed, there is a moral imperative for them to continue to develop and to do their best to lift their people out of poverty and underdevelopment. However, development is often accompanied by an environmental cost. Having been to China, I have seen firsthand the impact of carbon emissions and pollution on urban and rural environments. Exporting clean coal technologies to China will be of enormous benefit to the Australian economy, to the environment and to the people of China. I will just mention that White Mining Ltd trialled an ultra-clean coal project some time ago. I note that they have reactivated that project and the ultra-clean coal technology is being exported to the world.

In Newcastle we are also a centre for the research and demonstration projects that are going to be the drivers of innovation in clean coal technologies in the future. In May, the Minister for Climate Change and Water, Senator Wong, visited Newcastle's CSIRO Energy Centre with me to see firsthand the work that our scientists are doing there. We watched researchers who were in the laboratory testing which chemicals make the best binders for removing carbon from the other contents of electricity generated emissions. This is part of a wide range of work on clean coal being done by the CSIRO, looking at coal conversion and gasification processes. I also encourage the work of the University of Newcastle, which has set up a clean energy centre.

I am pleased that the Rudd government is providing a \$500 million National Clean Coal Initiative, which will keep moving us closer to the commercialisation of low-emission technologies. Commercialisation of these technologies is vital for the future of the Hunter Valley coalmining industry and the future energy security of our nation. But one

of the major drivers of new, clean technologies is going to be the Carbon Pollution Reduction Scheme. This is one of the key pillars of the government's comprehensive and interconnected policy approach to tackling climate change. It is a refreshing approach after the denial and scepticism of the Howard government. At the heart of the CPRS is emissions trading designed to create incentives to look for cleaner energy options. Under the scheme, the market finds the most efficient ways to reduce carbon pollution. We believe this will be the lowest-cost and most economically responsible way to achieve this goal. I am pleased that every cent raised from the sale of permits will be used to help households and businesses make the move to a clean energy future. Tackling climate change cannot be without cost, but putting a limit and a price on pollution will drive the changes we need in what we produce and the way we produce it. This is a huge reform of the Australian economy and, once again, it is vital that we get it right.

As I mentioned earlier, the House committee process has produced some good amendments to the carbon capture and storage legislation that we are considering today. In the same way, the careful and considered community consultation that is underway on the CPRS will, I am sure, also result in the right settings being implemented. Last month, a departmental consultation was held in Newcastle. It was very well attended by local community groups, environmentalists, scientists, business and representatives from all levels of government. The feedback given and the questions asked showed just how important the issue of climate change is in my electorate. I know that the government will be carefully considering all the feedback it receives from the community as the CPRS is developed and implemented. That is the best way to get it right, because it is under the CPRS that the new technologies we need for a clean future are going to be encouraged. Efficiency measures, green cars, solar and other renewables, and the clean coal and carbon capture we have been looking at under this legislation will all contribute to making a difference.

Another wonderful Rudd government initiative that will encourage us to move forward in this area is the Enterprise Connect network. Specifically, the new \$20 million Clean Energy Innovation Centre will help enhance the performance of Australia's small and medium sized clean energy companies by providing a range of business improvement services. The centre is expected to provide a comprehensive review of the firm that will identify its strengths and weaknesses, strategic business issues, potential areas for business improvement and potential areas for growth. It will provide grants for addressing areas identified by the review for improvement and growth. It will find and adapt the latest research and technology to help firms improve their products and manufacturing processes and services. It will provide access to specialist facilities and advice to turn innovative ideas into new products or to test products for new markets. It will help in identifying export markets and understanding relevant regulatory, cultural and market issues. The centre will also help firms to become export ready, including through developing management and marketing skills. It will also identify sources of government support for the firm's innovation and export activities. Last year, I visited David Mills in San Francisco and looked at the wonderful work he was doing there in solar research. I reflect on the fact that we lost David Mills's wonderful work to another country.

A call for expressions of interest went out earlier this year for organisations interested in running the Clean Energy Innovation Centre. I have discussed this at length with stakeholders in Newcastle, and an excellent proposal has been put forward from my region. As I have been telling everyone who will listen, the establishment of the Clean Energy Innovation Centre is a natural fit for Newcastle, as the future of our region lies very much in adapting our existing industrial base to a lower carbon future. It would be a great boost for us to fulfil the potential we already have here. The CSIRO's Energy Transformed Flagship and Energy Technology Division and the University of Newcastle's Clean Energy Centre are all doing great work on clean energy. Many of our SMEs, such as Corky's Carbon and Combustion, are already developing new products and commercialising their ideas. Of course, we are at the centre of energy generation and have proximity to major energy users in NSW.

We also have the talent and expertise to link with other organisations around the country as a part of the national Enterprise Connect network. This network is a great initiative of the Rudd Labor government and highlights the wide-ranging approach we are taking to fighting climate change. I congratulate the University of Newcastle, and Newcastle Innovation in particular, on leading the submission process. I know Ernst & Young are part of that submission as well, as are HunterNet, the collaborative manufacturing network. I know from the research that was done to put that submission together that over 50 per cent of business members of the Clean Energy Council in Australia are located in New South Wales. As they are the only bid from New South Wales, I remain optimistic. The network is a great initiative and it highlights the wide-ranging approach we are taking to fighting climate change.

Another initiative I would like to highlight is the \$500 million Energy Innovation Fund, which will boost Australia's existing momentum in solar technology research, particularly solar thermal, which has great potential for augmenting baseload power and in which CSIRO Newcastle is a world leader. Solar photovoltaics will also benefit from the EIF, with \$100 million being put towards solar technology research. This will be administered by a new body, the Australian Solar Institute. These initiatives build on the world-leading work already being undertaken at CSIRO in Newcastle.

I have digressed a little because it is important to understand that encouraging carbon capture and storage technologies is part of a broad-ranging approach by the Rudd government to fighting climate change. The practical assistance on the ground is something that we value. Encouraging research is at the centre of our reforms and, particularly in this legislation, giving certainty to business and industry is something that we all wish to progress. Carbon capture and storage is an important part of our strategy, and I wholeheartedly support the endeavours underway. The technologies involved in carbon capture and storage are well advanced, and there are international pilot projects directly involving the injection of CO₂ into rock in Canada, Poland, Norway and the Otway Basin in Victoria. I hear people say that this is unproven technology. It is commercially unproven at this stage but certainly not scientifically unproven. I note that in April this year a project announced by Peter Cook, now head of the CO₂CRC—and I know the University of Newcastle is part of the CO₂CRC—began in the Otway Ranges in Victoria with the injection of up to 100,000 tonnes of CO₂ down to a depth of about two kilometres. I also note that in July:

... the results of Australia's first successful trials of the leading technology for capturing CO₂, the most significant greenhouse gas, were announced.

According to David Brockway, the head of CSIRO Newcastle's Energy Division:

... the jointly operated CSIRO-industry pilot plant at the Loy Yang power station in Victoria's Latrobe Valley removed more than 80 per cent of the CO₂, using so-called post-combustion capture.

So the technologies are advanced and they deserve a great deal of support and encouragement. The world is moving ahead on this and, now under the Rudd government, so is Australia. This is important legislation that gives certainty for investment in carbon capture and storage technology projects. It gives us another avenue with which to pursue reductions in greenhouse gases, and that is, of course, something vital for our future. I commend the bill to the House.