COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON PRIMARY INDUSTRIES AND RESOURCES

Reference: Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill 2008 [Provisions]

FRIDAY, 18 JULY 2008

CANBERRA

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HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON PRIMARY INDUSTRIES AND RESOURCES

Friday, 18 July 2008

Members: Mr Adams *(Chair)*, Mr Schultz *(Deputy Chair)*, Mr Bidgood, Mr Champion, Mr Forrest, Mr Haase, Ms Livermore, Mr Perrett, Mr Sidebottom and Mr Windsor

Members in attendance: Mr Adams, Ms Livermore, Mr Perrett and Mr Sidebottom

Terms of reference for the inquiry:

To inquire into and report on:

The provisions of the draft Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill.

Specifically, the Committee will ascertain whether the Bill:

a) Establishes legal certainty for access and property rights for the injection and long-term storage of greenhouse gases (GHGs) in offshore Commonwealth waters;

b) Provides a regulatory regime which will enable management of GHG injection and storage activities in a manner which responds to community and industry concerns;

c) Provides a predictable and transparent system to manage the interaction between GHG injection and storage operators with pre-existing and co-existing rights, including, but not limited to, those of petroleum and fishing operators, should these come into conflict;

d) Promotes certainty for investment in injection and storage activities; and

e) Establishes a legislative framework that provides a model that could be adopted on a national basis.

WITNESSES

Committee met at 9.02 am

METCALFE, Mr Peter, Communications and External Affairs Manager, BP Australia

WILD, Dr Fiona, Environmental Affairs Adviser, BP Australia

CHAIR (Mr Adams)—I declare open this public hearing of the House of Representatives Standing Committee on Primary Industry and Resources for its inquiry into the future development of the draft Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill 2008. This is the fourth public hearing in this important inquiry. The committee has heard from a range of witnesses representing industry and government. I welcome the representatives of BP Australia to the committee.

Mr Metcalfe—Thank you.

CHAIR—Although the committee does not require you to give evidence under oath, I should advise that this hearing is a formal proceeding of the parliament. Therefore, it warrants the same respect as proceedings of the House. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of the parliament. The committee has received a submission from you. Are there any corrections or amendments you would like to make to that submission at this stage?

Mr Metcalfe—No.

Dr Wild—No, not at this stage.

CHAIR—Would you like to make a short statement? I am sure the committee has some questions for you.

Dr Wild—We do have a short statement just to summarise what we have put down in our submission already. Firstly, I want to give you a bit of background on me and Peter and what we have been involved in at BP. We have been involved in the development of CCS policy for a number of years, predominantly through our work on the prefeasibility study for the DF3 project at Kwinana, which is a clean coal power station, and through our interest in the Browse Basin LNG venture on the north-west coast of Western Australia.

I want to take the opportunity to thank the committee for inviting BP here to discuss the draft Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill 2008 and to express our thanks to the Department of Resources, Energy and Tourism for all their hard work in producing this draft. BP sees this bill as a critical piece of enabling policy framework which will equip Australia to tackle the twin challenges of energy security and climate change. It will facilitate the exploitation of Australia's indigenous petroleum and coal resources alongside the safe long-term storage of their associated carbon emissions. We believe that Australia is to be congratulated for the pioneering approach it is taking in the development of this legislation.

In responding to the bill, BP has considered the issues from a number of perspectives. As I mentioned, we own substantial assets in the offshore petroleum industry in Australia and we are keen to see our rights under the existing legislation protected. It is these petroleum assets that

also offer some of the earliest opportunities for large-scale integrated storage projects, and therefore we need the legislation to also support these projects. But, beyond our petroleum interests, we are also interested in developing storage projects that are not associated with our petroleum assets, including through our hydrogen energy joint venture with Rio Tinto. On the basis of that we hope we can bring a balanced perspective to the debate, and we hope the committee finds this useful.

In providing feedback on the bill, we have grouped our concerns into four key areas: addressing the transfer of long-term liability, protecting petroleum rights, maintaining momentum for storage integrated with petroleum products and facilitating storage projects through greater flexibility. We have discussed these in more detail in our written submission but I wanted to summarise those main issues here this morning.

The definitions of 'site closure', 'ongoing monitoring and verification requirements' and 'long-term liability' are of paramount importance to the storage proponent. As the bill is drafted, it asks the greenhouse gas storage proponent to accept a long-term liability that is quantified neither in time, scale nor scope. The proponent will weigh this against the alternative liability associated with releasing CO2 into the atmosphere and paying the cost of carbon—a liability which can be immediately quantified and discharged. So we suggest that the bill should be amended to ensure that a developer is aware of site closure criteria and post-closure obligations before injection commences so that these costs can be priced into development. Importantly, long-term stewardship and, effectively, liability should rest with a long-term entity such as the state.

We also detail in our submission some concern around the protection of existing petroleum rights. Pre-commencement petroleum titles and post-commencement petroleum production licences are adequately protected only to the extent that the significant risk of a significant adverse impact test applies. Therefore, it is essential that parliament provides clarity on the definition of 'significant risk of a significant adverse impact' during the legislative process by the publication of regulations and the publication of policy guidelines.

The introduction of the bill must also maintain momentum for storage projects that are integrated with petroleum projects as these projects will likely be some of the first major storage projects in Australia. Although the bill is silent on the definition of 'most deserving' for the purpose of awarding acreage, the Australian Government Solicitor's notes state that a work program alone is the criterion. This is a direct analog with existing petroleum legislation but the circumstances are different and require different treatment. The petroleum industry is highly developed throughout its value chain with deep and competitive industrial sectors in all aspects, but the storage industry has not yet reached this level of maturity. A competent work program is not a sufficient measure of a bidder's ability to progress a development and the government will need to take, initially at least, a broader view of a bidder's competencies if they want to maximise the prospect of storage projects proceeding. We recommend that in the first few years of implementation of this legislation there should be a bias towards industry development and full support given to those players who can deliver CO2 with the highest level of business and technical capability.

Lastly, the bill should also facilitate storage projects through greater flexibility. One of the consequences of the potentially narrow interpretation of 'most deserving bidder' is that it opens

up scope for speculators to sit on acreage with no capacity to fully execute a storage project. The draft bill attempts to remedy this by limiting the flexibility of timing and renewal of permits so that any incapable proponents who have secured acreage on the basis of a work program, but who are unable to progress it beyond it, will quickly lose their permit. However, this same risk is borne by legitimate CCS proponents, who must also operate within the same limited time frame even if it is not technically appropriate. This is much less flexible than in the petroleum industry, despite the fact that the CCS industry is emerging and the technical challenges are less well understood. We recommend that the bill must give greater scope for the minister to award extensions to permits beyond the rigid time lines currently proposed.

In post-commencement areas, the minister has power to decide whether or not any accidental hydrocarbon discovery takes precedence over existing storage activity. This introduces an unreasonable level of uncertainty for the storage operator, who may have been operating for many years and made substantial investments underpinned by an agreed site plan, only to be instructed to cease because of the unexpected discovery of hydrocarbons. We recommend that there be a statute of limitations after which an operating storage project is no longer vulnerable to being directed to cease work.

As detailed above, in a number of areas we are advocating that greater ministerial discretion be included in the bill. This is because of the flexibility required to adapt to the development of an emerging industry. However, to provide this wide discretion, exacerbating uncertainty for investors, we strongly advocate that the minister publish not only regulations but also clear policy guidelines on how he intends to exercise his discretion. Thus, the flexibility in the bill would be balanced by certainty in its implementation. Having given this overview of our submission, we would now be happy to answer any questions that you have on our submission or anything else that may have been prompted as a result of the inquiry.

CHAIR—Thank you very much. Mr Metcalfe, are you okay with that?

Mr Metcalfe—Yes, thank you.

Mr SIDEBOTTOM—Thank you. I was really interested in part 3 of your submission, which you alluded to just a moment ago in relation to maintaining momentum. You make a series of important recommendations there. I wonder if you would, for the record, take us through your reservations and some of your suggestions. You talk about transitional arrangements, but you also have concerns. You talk about value adding and the value chain that you have experience in, and you suggest that perhaps the carbon storage industry may not have that experience. You maintain that this momentum, if it is lost, it will be at a cost and that will affect potential investment. I wonder if you would take us through that scenario to try and give it a little bit more definition for us.

Dr Wild—Essentially, what that part of our submission is looking at is how we maintain momentum for storage alongside petroleum projects—that is, how do you make sure that we get the greatest opportunities for major early CCS projects which are integrated with petroleum activities? As the bill is drafted at the moment, we have noticed six particular areas where we think we could make some changes to the bill to facilitate or improve that momentum. The first suggestion in the bill is around the ability for a petroleum production licence holder to non-competitively translate that production licence into an injection licence. We would support that.

One of the issues that have been raised in the draft bill is around the source of the CO2 which he would be able to inject. We see a significant lack of clarity in the way the bill is drafted now about where that CO2 should come from. Our view is that, if there is a project there which is ready to store CO2, there should be no limitation on the source of the CO2. That is the first aspect. Please jump in, Peter, if I mix anything up.

One of the limitations that are also there as the bill stands at the moment is about the conversion of a production licence to an injection licence, and also about the feasibility of converting a retention lease to an injection licence—not just waiting for a production licence to be in place but also looking at those petroleum projects where retention leases are in place and at the prospect of those also being converted into an injection licence. Obviously, then, what you are effectively doing is opening up the possibility that someone is having access to a right that they did not have before, so we have suggested that you would have to make sure that there is no-one else in the area who is likely to want to competitively bid for that injection licence—no-one who would in, say, the next five years be able to come up with a project to store CO2 in that location. We would advocate that you would, subject to ministerial discretion and those conditions around there being no other competitive bidder, be able to turn your retention licence into an injection licence.

Further to that, we would also be suggesting that not only would you be able to convert a production licence and a retention lease into an injection licence; you would also potentially be able to go to an assessment permit. Again, there would have to be limitations around how that would be implemented. The only reason you would be able to go to an assessment permit would be if you could not carry out your pre-injection storage activity within that five-year period for very specific technical reasons. So it is not about handing someone a new right they have never been given before; it is about making sure that people can carry out storage to the optimum level, giving them some more flexibility there in how they can actually get things moving at an appropriate technical pace.

One of the issues that we have with our Browse Basin project on the north-west coast of Western Australia is that we are already looking at CCS options at the site, and we want to make sure we can continue to appraise opportunities at the site. With the bill potentially being instituted later on this year, we run the possibility of not being able to continue that activity. It may actually become illegal for us to carry it out. We hope that, in order to facilitate or maintain this momentum for projects, there will be some sort of transitional arrangement for projects such as ours, which is already looking at this opportunity, so that we can continue to carry on that work until the bill is in place.

One of the other specific issues where we see there may be room for improvement in the draft bill is around the spatial extent of injection licences. The way it is drafted at the moment, the bill suggests that an injection licence will effectively mirror a production licence area. Production licences are basically put in place to be as small as they possibly can be. As it has been described in the bill, an injection licence would have to cover the likely extent of the CO2 plume. To marry those two things up is very difficult. If you limit the spatial extent of the injection licence to the production licence area, effectively you are running the risk of leakage—leakage in the sense of going outside of your injection licence area. So our suggestion would be that, where there is no other greenhouse gas storage licence in place, the production licence holders should be able to

get an injection licence which covers the likely extent of the CO2 plume rather than limiting it to the smaller extent of the production licence.

The most important point, which I talked about in my opening statement, is around the definition of 'most deserving'. When acreage is awarded to a bidder it should be on the basis of: is this bidder actually likely to get this project up and running? Our two criteria for that at first pass would seem to be: is there a likely source of CO2 for injection, and does the bidder have the capability to institute a project from beginning to end and actually get the project up and running?

CHAIR—Some of the evidence from witnesses representing the petroleum industry has been that they do not want people looking for storage to interfere with them in places where they are already producing gas and oil. We are trying to come to grips with how to get the operator that presently has the licence to start negotiations with somebody who owns CO2 or is trying to dispose of CO2. Some people have suggested that if you do not use the storage within five years then you should lose the licence opportunity to do that. That fits in with what you are saying, but I think there is a little bit more tension in how we bring the parties into a commercial arrangement to move forward.

Dr Wild—One of the things we have suggested in our submission is that, to avoid any conflict in the early stages of implementation of the bill, you may want to suggest that existing production areas are effectively excluded from gazettal. So you may say, 'A production licence may be converted to an injection licence or'—as we have also suggested—'a retention lease under certain very, very strict circumstances.' But in terms of opening up gazettal of all areas you may want in the early stages to simply say, 'Production licence areas that exist now will not be gazetted for storage,' until we have had a chance to see how the 'significant risk of significant adverse impact' test works, for example, or how the bill works in practice, to avoid those sorts of conflict situations that you describe.

CHAIR—I do not think the public interest is going to allow that to happen, unfortunately. We will have to find other mechanisms to bring it together. I am sure the petroleum industry would like that, but there are other perspectives that also come into play.

Mr PERRETT—I want to go back to the question of how we assess who should be given the greenhouse gas storage tenure. You indicated that the criteria should be having a source of the CO2 and—what was the other thing?

Dr Wild—A business or financial capability to actually deliver a project. In the same way that in a petroleum project you need to be able to find your petroleum and sell it on—there is an entire value chain there—you need someone who is able to deliver you the whole value chain for a CCS project. You need to find your CO2, store your CO2 and make sure the whole integrated chain is there.

Mr PERRETT—Would the work program that they set out be it exclusively?

Dr Wild—No. What we are suggesting is that a work program alone is not a good enough measure to see if someone has the capability to actually deliver a project. A work program alone is essentially just about bidding for a certain number of wells or a certain amount of seismic over

a period of time. It needs to be more than that. We would suggest that the intent of this bill is to encourage storage, so you need to know if someone has the capability to actually make these things happen.

Mr PERRETT—Do you know of any similar state jurisdictions that have that criteria for assessing the release of tenure?

Mr Metcalfe—It is probably easier to answer by comparison—

Mr PERRETT—Any tenure.

Mr Metcalfe—with oil and gas as it stands today under the same bill. It has been challenged in court. The law actually has similar language around the most deserving bidder winning but over the years that has come to be interpreted solely as work programs. Effectively, items of work programs have become items of currency—the number of wells or the amount of seismic. That has worked quite effectively in the oil and gas industry because it is such a deep and competitive industry. You and I could go and bid some wells on a piece of acreage with no real capacity to actually deliver on it. But, if we bid for the most number of wells, we could win because the government could be secure in the knowledge that you and I would be able to then partner with a choice of people who would come in and form the rest of the supply chain. It works in that case to have a very narrow focus on the exploration work program and be blind—

Mr PERRETT—And of course assess that by the number of metres, et cetera—

Mr Metcalfe—And just assess that and effectively be blind to anything else in the entire value chain. The issue with CCS or GHGS, in the language of the bill, is that, while one hopes that it will get to that stage over time, today those other elements of the value chain are not there—there are not merchant refiners and merchant shippers of CO2 that you could turn to. Whoever wins the acreage needs to be able to do more than just conduct their wells; they also need to show how they can do the rest of the value chain.

Ms LIVERMORE—Turning to the question of site closure, you suggest in your submission that the criteria by which the minister will grant the site closure certificates should be published. What would you want to see in that further information? What criteria do you think should be there when the minister considers granting a closure certificate?

Dr Wild—I am probably not the best person to answer the criteria around the site closure because I would hate to claim to be a technical expert—which I am not. We want to see a definition around what you would have to do to meet the requirements for site closure so that it is very obvious when you have got to that point. Obviously, from a technical perspective, you would have an opinion on what those particular criteria should be. From a policy perspective, it is simply making sure that criteria are available so that the minister and the proponent can see that those things have now been met, and, therefore, site closure has been met and the certificate can be issued. Until you know what the criteria are you do not actually know when you have met the site closure point. So you do not actually know when you can say: 'Right, that's done; it's finished. It's over, we've closed it and it's completed.' I am not the best person to give details about what those site closure criteria should be. Basically those criteria should be available upfront so that everyone knows when that point has been reached.

Mr Metcalfe—I will add to that with the related point around the scale of the indemnity—the money to be set aside by the proponent in order to fund future monitoring and liability, which we have also suggested needs to be more transparent at the beginning. The reason for that is that, from a business perspective, you are going to want to try to accrue the funds to discharge your responsibilities over the life of the project when you have revenue coming in. If you do not know what that sum is going to be with any great certainty then you are going to have to take a very conservative view, raise a lot of money and set aside a lot, which will just push up the cost in the early days of CCS. If you had a clearer idea from the beginning of what you were going to be up for then you could plan much more efficiently as a business.

Mr PERRETT—If no-one else has another question, I will just go back to the idea of the CO2 being able to come from off the lease. It could be argued that that would give a big advantage to the current petroleum and gas producers and miners in terms of opening up a new industry. Would you like to respond to that suggestion?

Mr Metcalfe—Yes. There is clearly a balance to be struck—quite a delicate one in the early stages of the industry—between what is needed to get projects up and give certainty and what is right to create a fair and open competition, both of which are valid aims. It feels to us as though there is probably a changeover time as an industry matures where the competition issues, maybe, come more to the fore. To take a practical example like the Browse project, some of the CO2 that is generated will come from production licences, but there may be multiple production licences feeding one project. So do the molecules have to go back into exactly the right one or can you transfer them between ones which have common ownership? Also, what then happens to the greenhouse emissions which come from the processing of the gas—liquefaction, in the case of Browse? It is clearly an integral part of the project, but they are not the molecules that came from a production licence.

You could argue—and in parts of the submission we have argued a number of times—that the bill really needs to give the minister discretion to view these things because there is so much uncertainty in an emerging industry. We are asking for that discretion to be taken away again in regulation so that we have certainty, but the act itself gives him that. In the case of something like Browse—which, if my geography is correct, is about 400 kilometres off Broome; it must be about 2,000 kilometres from the nearest coal fired power station, which would be down in the Perth area—you have to wonder about what happens when you are trying there to balance up actually getting something done and what capacity of impact you are having. The balance there would seem to suggest that—

Mr PERRETT—Yes.

CHAIR—I think this pearl shell is creating coal somewhere underneath Broome!

Mr SIDEBOTTOM—Give or take a few—

Mr Metcalfe—Very slowly!

CHAIR—I think BP, with Rio Tinto, was a part of the Kwinana project, which failed. Could you just outline that? We had some evidence saying that, because that failed, greenhouse gas

storage is a hopeless technology and we should not even try and do it. Could you outline that? I understand that the storage did not quite meet the standard that was needed.

Dr Wild—Yes. I can give you a brief history of the project if it would help.

CHAIR—Would you mind?

Dr Wild—Yes, sure. We announced in May 2007 that we were going to undertake a prefeasibility study to look at the project in Kwinana. I think it was 500 megawatts of clean coal power generation, using coal from the local area and then taking the CO2 offshore into the couple of opportunities for storage relatively near inshore. I think it was about 200 kilometres offshore. So we carried on that work. It went over about 2½ years. Through the geological studies that we did, it became obvious that the sink—the storage location—actually would not give us the level of security that we would need for a first-of-a-kind project. I do not know who gave you the evidence that this would suggest that CCS does not work. I think that is an extraordinarily long bow to draw. What this suggests is that this particular project, now, is not going to work for us, but it does not mean it is not going to work for somebody else. In terms of giving us the level of security we would need around storage for a major first-of-a-kind project in Australia, it does not quite stack up now for us, but certainly the work that we did was incredibly useful just to see how all the building blocks of a project like this might fit together for Australia.

CHAIR—I think the press that I saw said, 'WA's $2 billion clean coal project ditched'. I take it that there was not $2 billion spent on the feasibility study. It was a feasibility situation?

Dr Wild—Yes, it was a prefeasibility study.

Mr Metcalfe—It would have needed to be, in fact, in order for them to—

Dr Wild—Yes.

Mr Metcalfe—The magic words in what Dr Wild said are 'first-of-a-kind project'. We wanted—and would need, I think—to demonstrate to the public a gilt-edged sink, if you like, which we could demonstrate standing up in a public town hall meeting. It does not mean that it does not work in that location or that, in the future, when this industry is well established and understood, we cannot come back and make a different assessment of the same data.

CHAIR—I think one of the things that we are trying to achieve is to give public confidence to this situation so that we can move into using this technology and this way of helping us meet what we are trying to do as a nation, and therefore—

Dr Wild—Certainly, in BP's case, we have been looking at CO2 storage for several years now. Now is not the time to go into the technical details of it, but we have our In Salah project in Algeria, which has been storing a million tonnes a year for seven years now.

CHAIR—And BP is going to continue to be involved in that along those lines?

Dr Wild—Absolutely.

CHAIR—Thank you, and thank you very much for your submission. It is a really good submission.

Dr Wild—Thank you.

CHAIR—It adds to our knowledge and to our capacity to, hopefully, add to this bill, so thank you very much and thanks for your time today. We might need to write to you if there is anything else that we need.

Dr Wild—We would be happy to help.

CHAIR—Thank you very much.

[9.31 am]

ZAPANTIS, Mr Alex, Manager, Energy and Sustainable Development, Rio Tinto

CHAIR—Welcome. Although the committee does not require you to give evidence under oath, I should advise that this hearing is a formal proceeding of the parliament. Therefore, it warrants the same respect as proceedings of the House. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of the parliament. The committee has received your submission. Are there any corrections or amendments you would like to make to it?

Mr Zapantis—No, thank you.

CHAIR—Would you like to make a brief statement?

Mr Zapantis—I would, thank you. I will be brief. Firstly, thank you very much for the opportunity to appear. I think it is also appropriate to acknowledge that the Australian government truly is leading the world in this area and that is to be congratulated. I do not think that is appreciated here in Australia as much as it is overseas, but it is a statement of fact.

CHAIR—Thank you very much for that.

Mr Zapantis—Rio Tinto believe that accelerating the development and deployment of CCS is absolutely essential to the global effort to mitigate climate change. The establishment of legislation to regulate geological storage of CO2 will play a critical role in the development of this technology. This legislation must not only establish an effective regulatory regime but also support the realisation of the government's vision of improving carbon productivity and moving the Australian economy to a low-carbon future. Rio Tinto believe that the draft Offshore Petroleum Amendment (Greenhouse Gas Storage) Bill establishes some disincentives to investment in geological storage that need to be addressed if the government's vision of moving Australia to a low-carbon future is to be realised.

CHAIR—Thank you. What main activities in carbon capture and storage in Australia is your organisation involved in?

Mr Zapantis—In Australia we support the CO2 storage research effort. For example, we are a member of the CO2CRC. We have our own in-house expertise at an engineering level, in terms of keeping abreast of the technology. We are involved in the IEAGHG program. Of course, we also contribute to the coal industry's Coal21 Fund, which is a voluntary levy to raise up to $10 billion over the next decade, approximately, to support low-emission coal technology development. We are joint-venture partners with BP in the Hydrogen Energy venture, which was developing the Kwinana project—which you have discussed just previously—and continues to take forward other projects overseas in this area.

CHAIR—So you are very involved in this technology.

Mr Zapantis—Yes.

CHAIR—There was a bit of a setback with Kwinana; you are not going to give up and walk away from the technology?

Mr Zapantis—No, of course not. As I said, we are progressing two other projects that have been announced publicly. The reason Kwinana did not proceed is a bit like exploration for minerals—sometimes you find a good resource; sometimes the resource does not quite stack up. In this instance, it did not quite stack up.

CHAIR—Thank you. How important do you think competitive bidding is for storage sites?

Mr Zapantis—I think the reason there needs to be some sort of competitive bidding process goes to the principle of ensuring that this resource is utilised to maximum benefit. So you need to balance the opportunity which is afforded by, for example, the petroleum industry, which has the expertise, has the infrastructure, has knowledge and is already operating on the ground in these very prospective areas. That is a very significant opportunity in terms of progressing the development of carbon capture and storage. On the other hand, you need to address the risk of anticompetitive, monopoly type behaviour, where petroleum producers might seek to lock up this resource. I think that is a very achievable challenge.

CHAIR—A public interest test of some sort to make sure that that does not occur?

Mr Zapantis—Yes.

CHAIR—But you feel that the petroleum industry has already been doing CO2 injection for a long time and has the expertise. Does your company have that expertise, being on the coal side?

Mr Zapantis—Our company does not have the expertise that the petroleum industry has when it comes to petroleum production or CO2 geosequestration. Our company recognises that the petroleum industry has a very significant natural advantage in this area. Our view is that we need to ensure that that natural advantage is applied in the public interest and in a way which ensures that CCS is developed as quickly and as efficiently as possible. But at the same time we need to balance the risks that come with that natural advantage.

CHAIR—So, if within your company's coal interests CO2 was captured and your company needed to sell it or process it within the supply chain, you would be quite happy to allow other companies to do that instead of you developing that expertise and becoming a driller and a company that puts CO2 into the ground?

Mr Zapantis—The position we are taking is that, in progressing commercial interests in this area, we are doing that through our joint venture with BP, Hydrogen Energy. In relation to the broader question of the facilitation of carbon capture and storage, Rio Tinto does not really have a position on who should be doing it as long as someone is doing it. The ideal outcome would be that the companies which are best placed to do this most efficiently in fact are able to do it. But, as I said, you need to manage the risk of non-competitive behaviour.

CHAIR—Thank you.

Mr SIDEBOTTOM—I wonder if we might explore an area which some other submissions have dealt with and which plays a significant role in your submission and in the terms of reference. In terms of long-term liability, you raise some really interesting challenges and suggestions about how to develop some common means to go forward, particularly in the short term. For a start, what mechanisms do you think could be used to manage the long-term liability issue between the government and the private sector? What are some of the initiatives that might be explored to overcome some of the potential barriers which you allude to that common law may establish for investment in carbon capture and storage activities? Are there any examples you might be able to cite in other industries where common-law liability has been assumed or shared by governments? Maybe we could explore the whole issue of liability. I know BP made comments in their submission, but could you explore that from your point of view, for the record.

Mr Zapantis—Perhaps it is appropriate to give a little bit of background before we launch into the detail—that is, when an investor is approaching a geological storage project, it needs to weigh up all of the risks and all of the opportunities. At the moment, long-term liability is a very large, unquantifiable risk, mainly because there is not an established, mature CCS industry. The remedies that industry can use to manage long-term liability in other areas—such as insurance, such as there being a well-established system of good practice et cetera, which provide very good surety to the developer of projects, in that they know how to manage their long-term liability—simply do not exist for CCS because it has not been done before as a mature industry, whilst it is of course ongoing in certain projects. So there needs to be some sort of policy response that assists the industry to overcome these significant uncertainties and encourage the investment in the first place.

Our submission suggests that there could be a provision in the act whereby the long-term liability is shared or taken by the Commonwealth government for the first-of-a-kind projects in Australia. Rio Tinto generally does not believe that governments should take on the long-term liability of any industry. However, in this case we are not talking about normal market forces; we are talking about trying to accelerate the development of an industry to meet an environmental objective, and the environmental objective does not respect market forces. Given that context, the bill could include a provision whereby the long-term liability for CO2 stored under the bill is shared with the Commonwealth government or taken by the Commonwealth government.

I do not have any fine detail around how that could be achieved. Clearly the insurance industry will need to play a role in this also. There could be a liability that is capped at a level of insurance which could be purchased at a commercially viable price, with the Commonwealth taking the liability beyond that point. That would allow an investor to understand from day one what their liability is going forwards and to make the investment with that knowledge. Without that knowledge it is very difficult, because there is no history of this activity on a large scale and there is not an understanding of how the legislation works; it has not been tested and it really is quite a significant problem for potential investors. Going forwards, after a certain amount of experience has been developed, that provision would have a sunset clause which removes that protection and the liability will fall where it may. But initially we think that there needs to be some sort of remedy to this problem of understanding what the long-term liability is and thus allowing investment to flow.

Mr SIDEBOTTOM—Thanks.

Ms LIVERMORE—If the Commonwealth is assuming liability for those projects, the trade-off could be that there are higher standards set for what the proponent has to do in terms of monitoring, verification and those sorts of reporting activities through the life of the project. I want to talk about the point you make in your submission about access to data. We have had quite lengthy discussions about that with other witnesses. From a practical point of view in the commercial world, can you talk about how you would see that sharing of data happening between competing interests.

Mr Zapantis—Let's assume there are two parties who are in conflict—for example, a petroleum producer and a CCS proponent. They want to develop their resources in the same area, and the petroleum producer's view is that this threatens their business, and the CCS proponent wants to put forward an alternative view. Whatever data is being utilised by one party in order to make their case should be available to the other party also, almost like discovery in a court of law, so that both parties are coming to the table with the same data and are able to interpret that data and present their interpretation to the minister, ultimately, for his decision. There are significant confidentiality issues surrounding this, and we acknowledge that. But businesses often exchange confidential data, and they do that through confidentiality agreements et cetera. The most obvious example is where one business is looking to purchase another business. Then the other business opens up its books and allows the other business, assuming that it is an amicable sale, to review all of their data. But that is on a very strict commercial-in-confidence basis.

Mr PERRETT—Like Rio and BHP!

Mr Zapantis—I am not going to talk about that today! The whole concept of exchanging extremely confidential data is far from foreign to business. There are well-established processes for doing it. Our view is that similar processes could be applied in this case to ensure that both parties have access to the same data and are able to make their case on the basis of that data.

Ms LIVERMORE—In evidence it has also been suggested by quite a number of witnesses that there be a mechanism in the legislation that requires the parties to come together around the table, a bit similar to the Queensland legislation dealing with the coal and coal seam gas situation. Have you got any views about that?

Mr Zapantis—Absolutely. We support that view. Ideally you will not end up in a situation where there is conflict. You would have the two parties coming together to work out how both businesses can proceed and we think that in almost all circumstances there will be an outcome which allows both businesses to proceed without one having an adverse impact on the other. There is a real risk that one may have an adverse impact on the other but, as long as there are mechanisms in place to ensure that the risk is identified and mitigating strategies are put in place, we think that that should be able to proceed. Clearly, the best outcome without a doubt is going to be achieved where the parties are talking to each other. So if the bill could establish a process that drives that negotiation, we think that would be a step forward, as described in the Australian Coal Association and Minerals Council of Australia's submission which we contributed to and endorsed.

CHAIR—Good faith bargaining!

Mr Zapantis—Yes.

Mr PERRETT—Putting aside your reservations about supporting the CCS in its embryonic stages, say, once we go through that, I am interested in the idea of giving some sorts of incentives for companies to get the CCS storage right and then hand the liability over to the state. Obviously there is a stick there if they get it wrong in that they could be sued, but that does not help them get it right in the first place. Would you be interested in kicking around that idea about what incentives could be there? We have had evidence previously about the idea that it makes good economic sense to get it right because they are then removed from the process, the CO2 is stored, and away they go onto the next project and the next opportunity to make money.

CHAIR—And maybe I could just add to that a proposition: if after 10 years of monitoring by the injector there is no change in the plume and everybody is satisfied with how the well was closed et cetera—the best technology has been used and best practice—and there is no change in 10 years, then the liability changes to government entity for the court's purposes of any liability into the future.

Mr PERRETT—And monitoring reverts to the Crown rather than the CCS storage operator.

Mr Zapantis—I think it is absolutely essential that if anyone does store CO2 it is done properly—absolutely essential—for the obvious reason that we do not want leakage but also for the other reason that we need to build confidence in this technology for the public, the government and investors. So how do you ensure that the CO2 is stored in a way that is going to remain stored indefinitely? That comes down to the assessment process.

I imagine that the way that will be dealt with is that the government will require CCS proponents to submit evidence or information—including geological models—which show how the CO2 is expected to move over time. Then the monitoring and verification regime, which is put in place throughout the operation, will be designed around determining whether or not the CO2 is in fact behaving in a way that the model shows. What you will find is that you will gather the most critical information during the operational phase and after the operational phase there will be much less monitoring required to continue to confirm that the CO2 is behaving as the model predicted, which must be in an acceptable manner. So the regime that you very broadly outlined whereby there could be a defined period of monitoring and, subject to confirmation that the CO2 is behaving appropriately, the liability could be somehow transferred to the state for the first few projects is sensible, I think.

Ms LIVERMORE—We heard the suggestion from BP that a production licence holder or even a retention licence holder should be able to convert their licence, effectively, to a GHG injection licence. It seems that in your submission you go to the other end of the spectrum and say that, in fact, even for producers to inject greenhouse gases as a result of their operations, pre-existing oil and gas licence holders should apply for a greenhouse gas permit. Is that what you are saying in your submission?

Mr Zapantis—Not quite. Our submission says that, where CO2 is produced as a by-product of petroleum production, the petroleum producer should be permitted to inject that CO2, within their retention lease area, without going through a competitive bid process. That is an existing right that they have. However, if they are injecting for the purpose of permanent geological

storage then of course all of the rigour around the integrity of that storage formation needs to be applied and therefore they will need an identified greenhouse gas storage facility. I believe that is entirely consistent with BP's evidence.

Mr PERRETT—So could you all but transfer the production or holding licence into a greenhouse gas storage licence?

Mr Zapantis—Where they are reinjecting CO2 produced as a by-product of petroleum production, yes. We do not want to cut off opportunities for the early deployment of geological storage of CO2. The petroleum industry has a real advantage here, and we need to ensure that that advantage is put to best use.

Mr PERRETT—Obviously, in the North West Shelf some of the ideas of ownership of CO2 are not going to be as complicated. But in Gippsland, say, and other parts of Australia, the ownership of the CO2 might become something to discuss. We have certainly looked at the concept of ownership of the CO2. Have you turned your mind to who will own the CO2? Once the greenhouse gas storage operator hands it over to the state it is obviously the state or the Crown that owns it, but could you take us through ownership—the property rights, basically—of the CO2?

Mr Zapantis—Essentially, our view is that until the lease is handed back to the Commonwealth the CCS proponent still owns and is liable for that CO2. This is particularly important when you consider the emissions-trading scheme, which will commence in 2010. The only reason you are going to inject CO2 into geological formations, which is an added cost to business, is in order to realise the commercial benefit that the reduced liability for emissions, via the ETS, delivers. The party that is realising that commercial benefit—that is, not having to surrender as many carbon permits—equally needs to maintain the liability for that CO2 until such time as it is handed back to the Commonwealth. It then belongs to the Commonwealth.

Mr PERRETT—The suggestion of the ACA and MCA was that due to the doctrine of fixtures—it became affixed to the soil and the soil is owned by the Crown—the ownership transferred almost at the time of injection. It is an esoteric point for a PhD law student, I suppose.

CHAIR—They are a lawyer's comments.

Mr Zapantis—I am a bush lawyer at best and a pretty poor bush lawyer, so I really cannot comment on the fine detail around how it is treated in law. But the principle should be, I think, that until such time as that lease is handed back to the Commonwealth the proponent is accountable for that CO2.

Mr PERRETT—Which is the common law anyway.

Mr Zapantis—Exactly.

Mr PERRETT—Whether you are pumping it into the air or whatever, if there is damage caused by the CO2 pumped into the air then you are responsible.

Mr Zapantis—Yes.

CHAIR—The world owns the present CO2, doesn't it?

Mr Zapantis—I suppose so. Nobody owns it at the moment; it is just released.

CHAIR—Everything coming out of a generator at the moment goes into the world—into the atmosphere.

Mr PERRETT—But legally the generator could be held liable for it.

CHAIR—Liable for any damage that it does that can be proven under common law. But I do not think the world is suing the generators, so it is a bit outside the brief that we have.

Ms LIVERMORE—I have a pretty general question, I suppose, going to your final point in your submission, which says that it is not enough for the legislation to regulate this industry and this activity but that it must really serve the broader purpose of facilitating technology development through encouraging investment as far as is appropriate. I am interested in your comments, not necessarily limited to the specifics of the bill but more generally. How can we best facilitate, through this bill and in more general policy terms, the uptake and development of CCS?

Mr Zapantis—That is a very big question. I will start with the bill. The relevance of the bill is not just in addressing the barrier of the fact that there is no regulation. Our submission identifies a number of barriers to the deployment of CCS, and the fact that there is no regulation is one of them. Obviously the bill does address that issue. It also goes to the commercial viability of these projects through understanding risks, through understanding liabilities et cetera. It also goes to how the CO2 is going to be dealt with once it is sequestered and how it is managed in relation to carbon liabilities, so there is an interaction there between this bit of legislation and how it will operate and the upcoming emissions-trading scheme. Essentially, our view is that the bill's role is to ensure that investors understand, at a quantitative level, what their risks and liabilities are going forward. It is consistent with the level of risk that is normally associated with investment. At the moment, the level of risk that the bill establishes is beyond the normal levels of risk assumed by business investment, simply because it has not been done before at this level.

Speaking more broadly, the factor which is holding back deployment of CCS most significantly is simply the commercial viability of CCS. It is much more expensive to produce low-emission electricity than it is to produce electricity using conventional means. That, added to the fact that there is still some uncertainty around the final costs because an integrated plant has not yet been built, means that the commercial risks are much greater than the rewards, so there needs to be some sort of support from government that enables industry to invest. Industry has enormous resources that it can invest in this technology, but industry can only do so on a commercial basis; that is the role of industry. So, somehow, government policy needs to unlock those enormous resources and bring that investment forwards. Part of that equation is going to be support of these sorts of projects with public funds. At a philosophical level, the role of government is not necessarily to make commercial investments; that is the role of industry. The role of government is to make investments where it is not commercial, in the public interest.

CHAIR—The risk we are talking about with brown coal involves building technology which can capture CO2, and then transporting and storing that CO2 at a cost that allows them to continue to generate energy and compete against black coal and gas.

Mr Zapantis—Black coal and natural gas also require carbon capture and storage, so it is not a matter of this technology being applicable only to brown coal. If we are serious about reducing emissions, we must have this technology for brown coal, for black coal, for natural gas and for other industrial sources of CO2. It is not just energy production; there are industrial sources which are large point sources of CO2. If we want to use our coal resources to produce liquid fuels—and Australia has absolutely enormous resources of coal—that is a very CO2-intense process, so the only way that we can do that and reduce emissions at the same time is to have carbon capture and storage to capture the emissions that result from the conversion of coal to liquid fuels. The importance of this technology in reducing emissions is absolutely paramount. If we do not develop and deploy this technology, greenhouse gas mitigation is going to be much more difficult and expensive than it otherwise would be.

CHAIR—Do you think the emissions-trading scheme is the incentive to drive the industry to find new technologies and find the solution?

Mr Zapantis—The emissions-trading scheme is part of the answer, no doubt about it. In the long term it will be the answer. In the long term the emissions-trading scheme will provide the reward to offset the additional cost of deploying this technology, but it will not do that in the short to medium term. The reason for that is that the first-of-a-kind plants will be much more expensive to construct and operate than the plants down the track. This is simply because it has not been done before at full scale.

The technology has reached the stage now where the biggest gains in understanding and the biggest gains in accelerating its deployment are going to be achieved through building one and operating one. We know the technology works. The technology is already in commercial operation around the world in different industries. What has not been done is that it has not been pulled together into one integrated plant and operated. What we need to do is build the next one, plug all of these different elements together and learn how to optimise the technology. The first ones will be expensive because you will overengineer everything to make sure that it works. You know that the availability of the plant is not going to be good for the first one, just as we see with every other technology. It is not until you build one and try and operate it that you identify all of the teething problems and bugs and it can be quite difficult to work that out. Once you work those out, the third, fourth and fifth ones become progressively easier and easier and therefore less and less expensive.

CHAIR—Like digital phones.

Mr Zapantis—Yes.

CHAIR—What are your views on industry-government partnerships to initiate some of this, especially in the early stages of getting some of this up and running?

Mr Zapantis—Absolutely essential. This must be a partnership between industry and government to bring this forward.

CHAIR—Do you think there is enough goodwill between the corporations in Australia, with their expertise in different areas, to come together to do that?

Mr Zapantis—I think there is. I think the Coal21 Fund is a good example of large corporates coming together and making a contribution to the development of the technology. Ultimately it will be the commercial interests that drive this technology, as it should be. But in the early days there is going to be a need for partnerships between corporates and also between the private sector and the public sector in order to bring it forward as rapidly and as efficiently as possible.

CHAIR—Thank you very much. Thank you for your submission and for your evidence. We do appreciate it very much. If there is anything else we need, we will write to you, if that is okay.

Mr Zapantis—Yes.

CHAIR—We will send you a copy of the transcript and you will have the chance to make editorial corrections.

Mr Zapantis—Thank you very much.

[10.04 am]

DWYER, Mr Damian, Director, Energy Markets and Climate Change, Australian Petroleum Production and Exploration Association Ltd

MULLEN, Mr Noel, Deputy Chief Executive, Commercial and Corporate, Australian Petroleum Production and Exploration Association Ltd

PARIMALA, Mr Ranga, Director, Exploration and Access, Australian Petroleum Production and Exploration Association Ltd

CHAIR—Welcome. Although the committee does not require you to give evidence under oath, I advise you that this hearing is a formal proceeding of the parliament and therefore warrants the same respect as proceedings of the House. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of the parliament. The committee has received your submission. Would you like to make any amendments or additions to it?

Mr Mullen—No.

CHAIR—I now invite you to make a brief statement before we go to questions.

Mr Mullen—We welcome the opportunity to appear before the committee today. APPEA represent the interests of the upstream oil and gas industry in Australia, and our member companies produce around 98 per cent of Australia's oil and gas. Reliable, secure and competitively priced energy is crucial to our everyday lives. Within this framework, oil and gas play a key role in meeting many of our energy needs. At present, petroleum accounts for around 54 per cent of Australia's primary industry needs, and this is expected to increase in the foreseeable future. The industry creates significant wealth for Australia, including through the direct employment of around 21,000 Australians, underpinning the revenue collected by governments and generating valuable export revenue for Australia. In the last two years alone the industry has spent more than $950 million in onshore exploration and nearly $3.4 billion in offshore exploration. A strong, vibrant and growing upstream oil and gas industry is essential to the ongoing health of the Australian economy.

APPEA strongly commends the work of the Minister for Resources and Energy, the Department of Resources, Energy and Tourism and the relevant parliamentary draftsmen in preparing the bill we are considering this week. The legislation is truly groundbreaking and it will make Australia the first jurisdiction to develop a comprehensive framework for greenhouse gas injection activities. As you may be aware, the oil and gas industry has considerable expertise in utilising and developing the technologies that are required for CCS both in Australia and internationally. The oil and gas industry is the only industry undertaking commercial injection and storage activities as an integrated part of its petroleum operations. They are directly linked with our petroleum operations. We are not aspiring to, or trialling, such technology; we have been doing this for many decades. This fact appears to be neither well understood nor given due recognition in some parts of the bill. In addition, the legislation that this bill proposes to amend

has underpinned the operation of the upstream oil and gas industry in Commonwealth waters for more than four decades. Any issue that impacts on the administration of this act is therefore of critical and fundamental interest to our industry.

APPEA's views on CCS fit within the broader framework of the industry's greenhouse response policy. This policy notes that APPEA and its members are committed to working towards a profitable, safe, environmentally and socially responsible oil and gas exploration, production and development industry. APPEA's comments on the bill are also framed against the industry's CCS policy objective, which is to ensure that it does not impede the exploration and development activities of the upstream oil and gas industry in Australia; that it provides an efficient and effective regulatory framework for oil and gas project proponents seeking to store greenhouse gases as an integral component of their operations; and that nationally and internationally consistent regulations are developed for CCS activities. With that in mind, the bill raises a number of key issues on which the industry would like to comment.

A fundamental starting point for the industry in assessing any legislative and regulatory framework is the preservation of the rights of pre-existing titleholders. APPEA is of the very strong view—a view consistent with the longstanding policy positions of all governments, which emphasise the importance of Australia's low level of sovereign risk and its political and policy stability—that any CCS related legislation should protect the rights of pre-existing titleholders and provide for the future growth and development of Australia's upstream oil and gas industry.

APPEA has long recommended that any legislation that would provide a framework for CCS or other activities in the area should only proceed if it does not impact on an existing oil and gas operation or permits a pre-existing titleholder and CCS proponent to enter into commercial negotiations so that agreements can be struck. With this in mind, APPEA notes that the bill has addressed this issue through the proposed section 249AF. The level of protection provided by the proposed section depends on whether the petroleum title came into being pre or post the commencement of the amendments that the bill will introduce. APPEA welcomes the bill's efforts to address this core issue.

As APPEA understands it, this proposed section would mean that for pre-commencement titles and post-commencement production titles—but, importantly, not for exploration titles—the responsible Commonwealth minister must not approve key greenhouse gas operations if there is a significant risk of a significant adverse impact on petroleum operations unless the petroleum titleholder has agreed to the operations and the terms of the agreement are not contrary to the public interest.

While APPEA supports guidance on the bill that states that the impacts of CCS operations are defined to include impacts of both the level of geological formations and physical interference on the surface with the petroleum titleholder's operations, it is important that an appropriate definition of significant risk of significant adverse impact is established. APPEA understand that it is government's intention for this definition to be dealt with by regulation, and we look forward to consultation on this definition when drafts of the regulation are released. It is important that this regulatory clarification be provided expeditiously.

The level of ministerial discretion contemplated in the bill is expansive. While the ministerial discretions must be exercised lawfully and for a proper purpose and are subject to review, they

could act as a disincentive for investments in both future petroleum operations and CCS operations. In addition, while APPEA is supportive of the overall framework provided for by the draft bill, the wide discretion for the responsible Commonwealth minister in a range of matters and the fact that the bill does not provide explicit definitions in a number of crucial areas are further reasons why the release for consultation of the relevant regulations and guidelines must be undertaken as a matter of urgency.

APPEA notes that the bill intends that holders of petroleum production licences would continue to have the ability that they currently have to do whatever is necessary for the purpose of recovering petroleum, including injecting methane or carbon dioxide for gas recycling, enhanced petroleum recovery or normal project operations. APPEA strongly supports the intent of the bill in this regard as the legislation has always clearly defined the rights and obligations of petroleum producers to re-inject carbon dioxide or gas for business purposes in Australia. It is a key component of long-established good oilfield practice which relates to all those things that are generally accepted as good and safe in relation to the carrying on of petroleum exploration or petroleum recovery operations.

The activities currently or potentially to be undertaken by the holders of petroleum licences to recover petroleum represent common and longstanding industry practice utilised by the upstream oil and gas industry worldwide to enhance hydrocarbon activities from operating petroleum fields. They are not CCS activities of the kind contemplated by the bill. To argue otherwise represents at its most generous a fundamental misunderstanding of the way in which the upstream oil and gas industry has operated globally for decades.

The industry does not contest, subject to the comments contained in our submission, that CCS activities unrelated to petroleum production should be regulated by the amendments proposed in the bill and be subject to the licensing and regulatory regime. The amendments in this area should not, however, impinge on or apply new governing standards to longstanding and legitimate petroleum recovery operations.

In addition, the bill should also clarify the language used which may restrict the right to a single, specific licence area. APPEA believes clarification of this point is necessary in ensuring that the intent of the provision is met and that current rights that may extend to several licences in a project area are preserved.

The defining of long-term liabilities and management of post-closure responsibilities for the long-term underground storage of carbon dioxide is a key regulatory priority. APPEA notes that the key issue in considering long-term liabilities is to adopt an approach that balances industry certainty and community returns. The approach adopted in the bill is that, following site closure, proponents will have discharged their liabilities but may still be found liable for breaches of statutory and common law. Whether such an approach provides certainty for CCS proponents is unclear. The proposed amendments would leave the project proponent open to common-law liabilities for as long as the project proponent exists. This will be a barrier to the uptake of CCS projects and may not be consistent with the approach taken in other jurisdictions, such as the United States and the European Union.

The proposed amendments will fundamentally change the legislative framework facing the petroleum industry, introducing a range of new regulatory requirements. The new framework

must be developed and administered in a manner that facilitates ongoing activities of the upstream oil and gas exploration and production industry in Australia. APPEA is concerned that sections of the bill in this area will provide an ongoing disincentive to future upstream oil and gas activity through a dilution of legal certainty for oil and gas producers compared with the level of legal certainty associated with pre-commencement activities.

The legislative amendments include as an offence unauthorised exploration for a potential CCS formation or a potential CCS injection site in an offshore area. APPEA notes that many of the methods used to explore for petroleum will be the same as will be used to explore for CCS storage formations. Given this, APPEA recommends that the bill be amended to clarify that a petroleum exploration leaseholder cannot be deemed to have committed an offence simply because that explorer was undertaking petroleum activities that could reveal a potential CCS site.

Finally, one of the issues discussed in our submission is access to geological data gathered by petroleum operators. As has been noted by others, the provision of data by the industry to Geoscience Australia and its release on the public record is both timely and extensive, far more so than applies to other exploration activities in Australia. All the data required by another oil and gas operator or by a CCS proponent to assess a potential area and prepare a bid are available under current provisions that have operated in the industry for the best part of four decades. We would now be pleased to answer your questions.

CHAIR—Thank you for that. One of the issues we are grappling with is how to ensure the storage of GHG where a petroleum operation has already commenced and oil and gas is being recovered. You might like to give us your views in that area. We have had suggestions that, as it presently stands, the operator would be able to say, 'No, we think it's going to have an impact; if we try to inject any CO2 here it will put pressure on our well or on the present operations, so go away.' We think there is a public interest here that has to be resolved. We would hope to see goodwill and bargaining in good faith and commercial people coming together to resolve that—and we see that happening in the petroleum industry. It is very impressive to see the way so much cross-corporation work is done to achieve an end of production. This is a new area so we are looking at that. We are trying to come to grips with that; we find it is a bit difficult and we need to find a solution.

Mr Dwyer—As a general opening comment, the bill provides a framework within which that can take place. It makes an important distinction between pre-commencement titles and post-commencement titles. Focusing on pre-commencement titles first, the bill provides the significant risk of a significant adverse impact test that can be applied to the pre-commencement title. The nature of that test, as we said in our opening comments and as I think everybody appearing before the committee thus far this week has said, is a matter of key concern, and everyone wants to see how that is going to operate and how it is going to work. That provides the framework within which a significant risk of significant adverse impact can be assessed. Beyond that there is the opportunity for commercial negotiation between the proponents to take place to see if an agreement can be struck. That takes place within a fundamental principle, which is about protecting the interest of pre-existing titleholders rights, and that is something that I think, as we mentioned in our opening address, all Australian governments have emphasised for many, many years and the organisations appearing before you this week have themselves emphasised in different circumstances over many, many years. So I think the

distinction between pre and post is entirely valid, and you heard from the department at the start of this week along those lines.

Post-commencement, you are in a situation where the rights and obligations of both parties are broadly similar, so there are opportunities for commercial negotiations, and commercial drivers for them to come to arrangements. You pointed to the experiences within the petroleum industry and you have heard from various petroleum industry operators this week about their experiences in this regard. The track record in the industry of doing this is fairly strong, so the commercial opportunities in the post-commencement titles sphere are pretty strong. Of course we have the public interest test that comes into play in that area as well. The way in which that finds the balance between varying interests is important.

CHAIR—So you have not got a problem if the minister says: 'No, we don't accept that this may impact on oil and gas recovery. We think in the public interest we have to store this below where the oil and gas are coming from,' and authorises that to be done?

Mr Dwyer—In a post-commencement context, then the public interest test comes into play. How that plays out at the end of the day is something that we will all be interested in going forward. The bill contemplates that possibility. It also contemplates the other possibility—that, notwithstanding the purported need for injection in that area, it is not in the public interest for that to go ahead. So both possibilities are accounted for in that public interest test. How it is applied, how the balance works out and how the various factors that are important come into play are things that everyone will be intensely interested in going forward.

CHAIR—I am sure we will be.

Mr Mullen—I think it is fair to say as well that the bill has a fair balance. I think it recognises the interests of the parties who have invested significantly to date in petroleum operations. It recognises that that investment has been undertaken on the basis of a certain framework and that certainty needs to be provided. It also recognises, though, that on a go-forward basis there needs to be a more equal test in terms of the competing interests and, possibly, the complementary interests. I think there is more a view on the negative, but in fact there may be a lot of positives in terms of the way that both CCS and conventional petroleum operations can be entwined—

CHAIR—And emerge. We accept the property rights that presently exist. I think most people accept them and the government would, but this is about finding and serving the public interest. Therefore, one would hope that you could get a commercial situation of people sitting down and dealing with the issue. We will grapple with that aspect.

Ms LIVERMORE—Following on from that, I am interested in your view on the discussions we have been having with other witnesses about the suggestion that there be a requirement in the regime relating to pre- and post-commencement titleholders to come to the table and start talking on a commercial basis as a precursor to any ministerial decision about significant risk or in parallel with the application of the significant risk test.

Mr Dwyer—As I mentioned in my earlier comments, that possibility is provided for in the relevant section of the bill as proposed. So there are opportunities there for commercial agreements to be struck. We heard earlier that commercial agreements and joint venture

arrangements are common in the petroleum industry, and there is no reason why those sorts of arrangements could not be entered into. It is no mistake that the large projects that you have had come before you, or that have been spoken about this week, have petroleum industry involvement in one form or another.

Ms LIVERMORE—Are you saying that opportunities to do that should be mandated? Should the discussions between the parties be something that is required in the legislation?

Mr Dwyer—In a pre-commencement situation, we would argue, certainly not. The circumstances of those titles are fundamentally different from post commencement. I think it goes to a broader principle than just the CCS titling and regulatory regime that we are talking about here—of property rights and their protection in our policy framework in Australia. So I think it is a bigger issue than just CCS.

CHAIR—The government will acquire people's property if it is in the public interest. We build roads and buildings that are necessary in the public interest. We can say that there is that issue, but we have to find a way forward. If there is no requirement to sit down and negotiate, and one side sees no opportunity, they can say, 'We're not interested.' You are saying that the bill provides that, that the minister says you need to sit down?

Mr Mullen—Industry recognises that governments ultimately will have to make decisions in terms of what represents the public interest, and we respect that the role of government is in fact to make those decisions. But counterbalancing that is the broader question of the significant investments that a lot of companies have made under an existing framework, and any change to that has, obviously, much wider ramifications than just for those titles. There is a broader issue in terms of certainty of investment decisions. So, while that is ultimately a decision of the government, we certainly believe that the current legislative proposals provide the appropriate balance.

Mr SIDEBOTTOM—I have more questions on the same thing, but for the record I am interested in your comments on long-term liability, particularly in terms of potential disincentives in the future. You made comments in your submission about the application of common-law liabilities, which the draft legislation looks at, saying:

This may be a barrier to the uptake of ghg injection and storage projects—

which I understand, but you also say—

and may not be consistent with the approach taken in other jurisdictions, such as the United States and the European Union.

Could you elaborate a little bit on your concerns there and also the precedent that you seem to be citing here, both in the States and in the European Union in terms of long-term liability, and any suggestions that you would make to give greater certainty in terms of the liability issue.

Mr Dwyer—Certainly. I will go to the US and EU examples first. What we have cited in our submission is the situation in the US around the FutureGen project and the consideration of the site in Illinois or Texas for the project. Both those states offered indemnities in one form or

another to the project as part of their efforts, I guess, to secure the investment for their state. In terms of the EU, they have a draft directive out at present about CCS activities in the European Union. It similarly sets out a process for what we have termed a site closure and talks about the issue of a site closure certificate that would then pass liabilities to the regulatory authorities in the EU. So that is at draft stage, but that is what the EU are contemplating in this area.

The question then for us is: what implications does that have for the Australian regulatory regime? With what is proposed in the bill—which is, as we have mentioned and as others have focused on quite a lot this week, statutory law liabilities and common-law liabilities—does the existence of those common-law liabilities provide a barrier to CCS proponents in considering their investments? I would not have much to add in this area because it is something that has been focused on quite a lot this week, including this morning. What we have recommended in the submission is clarity, certainty and being as up-front as possible as to what your requirements are going to be so that you can make an assessment, in terms of the costs and responsibilities that you are taking on, to help you make a more fully informed investment decision.

Mr Mullen—Just to clarify, the focus of APPEA's submission is primarily from a petroleum exploration and production perspective, and the observations that we have made in relation to carbon capture and storage and liabilities are really observations that our member companies have brought to the table. I guess that, at the end of the day, it is really the role of legislators to determine what the balance is between the long-term liability and the need to provide the framework that provides enough of an incentive for a party to undertake those activities.

Ms LIVERMORE—There is one thing in your submission that I do not think we have really discussed with anyone else. It is on page 4, where you talk about the situation of a greenhouse gas injection licence holder discovering petroleum—I presume—as part of their activities. I think you are suggesting that in that situation the minister should be required to inform the petroleum licence holder about the existence of that petroleum. Can you talk through that. Why should that be mandated? Should the property in that petroleum automatically be vested in the petroleum licence holder? Could you just expand on that a bit.

Mr Dwyer—Yes. I guess what we are talking about is two situations—one where there is an existing production licence and one where there is not—and how petroleum discovered is treated in those situations. In the production licence situation, where there is an oil and gas producer actively producing in that area, our view is that the data requirements should be that that data be provided to the operator, who is on there to produce petroleum. That is consistent with some of the data requirements that exist now for the oil and gas industry under the current arrangements. In a situation where there is no production taking place—and one of the witnesses appearing before you earlier this week spoke through this situation—it is appropriate that that information be vested in the responsible Commonwealth minister. Again, that is a situation that we would see as being very similar to the situation facing the oil and gas industry at present.

Ms LIVERMORE—In that situation, it would then be up to the minister to go through the usual acreage release process?

Mr Dwyer—The usual gazettal processes and acreage release processes that are currently undertaken. That is right.

CHAIR—Do you see any incentives that would encourage the petroleum industry to take up the opportunity of the storage of CO2? I know it is done where the CO2 is captured from gas, but in other situations are there any incentives? Have you thought about that?

Mr Dwyer—I guess different companies are pursuing different business models. You have seen some companies this week talk about their circumstances. So, for a situation where it is an integral part of the gas operation, there are examples happening and there are examples planned for the future. There are also opportunities being talked about, around the world and in Australia, for companies to utilise their expertise in this area to undertake storage activities. So are there incentives for that? I guess that is a slightly different debate—and we have the release this week of the emissions-trading scheme green paper, which is a key part of that—but certainly there are companies exploring opportunities.

CHAIR—The emissions-trading scheme is more of a punishment than a carrot. I was speaking more of the carrot side.

Mr Mullen—I guess that, from a legislative perspective, one of the challenges is that the desire to move from, perhaps, petroleum activity to greenhouse storage activity is a challenge for legislators in terms of making sure that that framework is open and transparent and provides the appropriate balances for both the current permit holders and, potentially, new entrants. Certainly, from a current petroleum licence holder's perspective, part of the normal business model will be looking at ways of utilising the resource in the most efficient manner as that resource approaches the end of its productive life, and enhancing the economic life of a petroleum reservoir would be something that most project proponents would look at.

Mr Dwyer—In terms of incentives, one of the points I would add is that whether incentives do or do not need to be provided for CCS activities is obviously a matter for public debate. The situation we face at the moment, though, if you are an oil and gas producer looking to undertake CCS activities of one form or another, is that there is not public money available to you to do that the way there is in some other circumstances.

CHAIR—Do you think that in the early stages of the new circumstances maybe we need industry-government partnerships to make some of this happen?

Mr Dwyer—There is certainly an argument around that—definitely. I would note that some of the proposals that we are talking about are on a commercial scale and whether incentives are required there or not is something that I guess the proponents involved would be interested in talking about.

CHAIR—It is the risk. We are going to ask people to take a risk—

Mr Dwyer—In terms of moving into newer areas, the sorts of volumes we are talking about to make a serious difference, are obviously—and you will have heard this during the week as well—orders of magnitude larger than has been undertaken at present. In order to move from the current circumstance to the circumstance of significant CCS, if some of the technology issues that do not exist for our industry are cracked, then I think that the sorts of industry-government partnerships that others have spoken about have a role to play.

CHAIR—But don't we have to be bold? Isn't this a time to be bold?

Mr Dwyer—It is a time to explore the opportunities—absolutely—and the oil and gas industry is doing it on the ground right now, and that is obviously an area where early action can be taken. That is one of the key points around this: the activities that are underway right now are oil and gas activities—oil and gas related—and the activities that will be underway in the short term will also be oil and gas activities. I think that is something that needs to be appreciated as we consider this issue.

CHAIR—Thank you very much for your evidence and your submission. If there is any further information, we will write to you. There will be a transcript of the evidence which you will receive and you can make editorial corrections to that. Thanks again.

[10.46 am]

MILLER, Mr John, Policy Officer, CCS Legislation Section, Department of Resources, Energy and Tourism

YOONG, Mr Clement, Acting Manager, CCS Legislation Section, Department of Resources, Energy and Tourism

CHAIR—I call the representatives of the Department of Resources, Energy and Tourism to give evidence again. Welcome.

Mr Yoong—Thank you for hosting this. We are from the Department of Resources, Energy and Tourism. I am the acting manager of the Carbon Capture Storage Legislation Section. I work directly on international engagement of CCS. I have had a few dealings with the developing legislation. I am here with my esteemed colleague John Miller, who has worked directly on the legislation. I bring apologies on behalf of the department that other senior members of the team who have worked directly on the legislation are not here with us. Given that, we will try our best to answer all questions and we will be happy to take questions on notice and get back to you by early next week.

CHAIR—Thank you very much for that. Although the committee does not require you to give evidence under oath, I should advise you that the hearing is a formal proceeding of the parliament; therefore, it warrants the same respect as proceedings of the House. It is customary to remind witnesses that giving false or misleading evidence is a serious matter and may be regarded as a contempt of parliament. We have your submission. We have had witnesses from your department on one occasion already. Is there anything you would like to say up-front in relation to the evidence we have gathered this week or would you just be prepared to answer some questions that we may have?

Mr Miller—I would like to make a quick statement. Just from observing the proceedings over the last 3½ days I have found it very insightful to see the different concerns from the different parties that are going to be involved in this new and emerging industry. I think this process has added a lot of value to our development of an appropriate legislative framework.

CHAIR—Thank you very much. I think it certainly has. It has probably teased out a lot of issues for everybody involved, including the industries, and it has probably clarified a bit where the issues are that we have to deal with in a legal sense to make sure that people are confident to go forward with this legislation, and the role it can play in the bigger picture.

Ms LIVERMORE—I was wondering if we could have a discussion about the idea of early movers in the industry and trying to kick-start the industry. Could you just offer your views on things that were suggested, such as the Commonwealth offering indemnity to a small number of early projects or giving existing titleholders a one-off opportunity to develop greenhouse gas storage sites and operations in that area. Talk through that facilitation of early movers.

Mr Miller—I think that if this new industry is to be taken up on the scale that is needed to significantly reduce our greenhouse gas emission levels, incentives to facilitate this uptake are essential. I believe the legislation is designed as an enabling framework. The drivers to take up that legislation are all available if the government chooses to work in private-public partnerships to facilitate early movers, to offer special dispensations in regard to sharing or ultimately taking over long-term liability or, as they are doing now, providing significant funding for the actual development of these projects. The government has a lot of initiatives for funding early movers, specifically first-of-a-kind projects that have a lot to do with the carbon capture side. As you have probably been aware of through this week's proceedings, the Commonwealth is active as a funding agent in a lot of these activities. To answer your question, yes, I believe that there is a very strong role for the government to be involved in the rapid and early uptake through the provision of incentives. But I would say that a legislative framework to prescribe those incentives might not necessarily be the best option.

CHAIR—So to encourage people to find the acreage or to find the storage facilities and start to firm them up, we tell them that if you move early you should gain an advantage. That would be one incentive that we could have to encourage operators to move in that way.

Mr Miller—Absolutely. Already the government are actively involved in the national carbon mapping and infrastructure plan. We do have a role even prior to the industry coming in and starting to explore to provide pre-activity data from the accumulation of knowledge that we have acquired from other industries, such as petroleum, for this new industry to be as aware as they can be on the prospectivity and the likelihood of moving to a successful business.

CHAIR—It encourages them to be bold.

Mr Miller—Yes.

CHAIR—To find the solutions.

Ms LIVERMORE—If I can just clarify. Are you saying that you would have the overarching legislative framework as envisaged in this bill but within that and running alongside it the government could have those special concessions and arrangements for individual early projects?

Mr Miller—I must admit that in drafting the legislation we tried to make it one size fits all. It would be preferable with an enabling legislative framework like this to maintain it as the access framework. The drivers could come from many different sources over the next few decades. For example, the ETS is in fact a driver to use in this legislation. Financial incentives, partnership incentives or any of those other incentives I believe would probably be more appropriate as parallel processes undertaken by the government.

Ms LIVERMORE—That excludes the idea that some witnesses have suggested about the Commonwealth extending indemnity to early projects.

Mr Miller—With the legislation remaining silent on long-term liability, I am not that au fait with the law but I am sure there will still be special contractual arrangements that could be done on a project by project basis that do not conflict with the primary legislation.

CHAIR—The evidence that we have received, and the concept that we have pushed around as a committee, is that working on a project by project basis means the probability of risk is low and the longer you go out the more that becomes the case. There is a 10-year period of monitoring up-front. We have received good evidence that if it is done properly, including sealing the wellhead and doing early monitoring when the injection has taken place, one would be able to see where the plume has been, where it is going and whether it is moving. The technology seems to be there to achieve that. So incentives in that area need to be explored further. We need to allow industry to take the risk but give them some incentives as well. Do you think that is a reasonable proposition?

Mr Miller—I think what you are saying is a very fair proposition. This is a new industry. There is a very high level of uncertainty associated with it. At this stage there are not a lot of economic drivers to undertake these activities. On the risk side there is potentially an open book and on the opportunities side it is fairly tight at the moment. I believe that we do have a role to facilitate it with a framework that achieves the outcomes that we desire, which are safe and secure storage—preferably with no legacy impacts on people but at the same time promoting early movers and also promoting a usable system. One of the biggest fears in developing any legislation such as this is that you end up with ghost legislation—that is, you make it very unattractive to any investor and it is not taken up by anybody. So, yes, we would like to avoid that.

Mr SIDEBOTTOM—You said that the draft remains relatively silent on the issue of long-term liability. We have heard that this seems to be a common potential disincentive to proponents. Why was the issue of long-term liability omitted? I would like to hear your views on that. In the submission from the industry witnesses earlier they talked about how in the US and the European Union that issue had been dealt with in order to try and drive some of this in their regulations or legislation.

Secondly, related to that, we have heard evidence throughout the week about the ownership of CO2 at various stages of the activity. Why has that not been defined, as it is part and parcel of the issue of longer term liability? What are your opinions on that?

Mr Miller—With regard to the cases oversees, I am fairly familiar with the US situation. What happened there was that a number of states were interested in attracting the investment business associated with this massive demonstration plant. It was one of the concessions offered to make the project attractive to their area. If you draw the analogy, that would be akin to providing some form of long-term liability restrictions on early movers or first-of-a-kinds if we were to take that up in Australia. In a broader context, re the issue of defining long-term liability I really would feel more comfortable, based on my experiences, with a lack of formality in the general industry as it goes forward. The reason for this is that statutory responsibility ends at project closure. For project closure to be achieved, the regulator is going to have to have a very high degree of confidence in the long-term fate—in the fact that the long-term issues are fairly well known or very well known and that there are no significant risks on the horizon, extending into the future. Therefore, the long-term liability is what I would consider negligible under common law compared with getting to that closure certificate.

Therefore, I cannot see what the advantages are of absolving parties of their common-law liability. Some of the primary things covered by common law include actions resulting from

negligence and nuisance. Do we really want to absolve parties from those? Do we really want to provide a liability framework that says, 'If you can get to this point, you're absolved of all future responsibilities,' and then, because they have no responsibilities at that stage, be forever wondering what they have not told us about that is going to happen in 100 or 150 years time? I think remaining silent allows us, if we decide at a later date to define the extent and boundaries of what liability will be, to pull it back. But to tighten it at the initial stages, when there is possibly a large degree of uncertainty, could make it very difficult later on to say, 'You now have more liability than when you went into this business.'

Mr SIDEBOTTOM—I suppose there is that balance, isn't there? There is the incentive side, the carrot and stick issue—though I suppose this is half a stick and not a lot of carrot. I can see where you are coming from. I was curious as to why you remained silent; there was no real explanation for that. Others have raised this as one of the major potential disincentives, so we need to get that on the record.

Mr Miller—On the flip side there, I can see a lot of solid advantages in defining long-term liability, as far as investment surety goes, for purposes such as insurance and so forth. Particularly in a high-risk, unknown industry like this, there are definite advantages there, but when we, in developing the legislation, weighed it up, it was more beneficial to remain silent over the array of arguments than it was to explicitly allocate.

Mr SIDEBOTTOM—We have asked—and we have had several submissions asking—who owns the CO2. Is it that difficult? Do you remain silent on that as well?

Mr Yoong—The legislation does not really seek ownership of the injected substance. It is more concerned with the licensee's management of it and the impacts of that rather than a title to the injected substance. I guess the intent of the legislation—not stating the ownership of the CO2—is really that it will become permanently trapped in a geological formation, either through forces or through reactions with the formation. In this case, it is effectively part of the geosphere and, in the future, not identified for the purpose of establishing title.

CHAIR—That will disappoint senior counsels.

Ms LIVERMORE—I ask you to talk about what seems to have been my hobbyhorse during the last few days: management of pre-commencement petroleum titles versus prospective greenhouse gas title holders. What are your views on the suggestions that have come forward—that the bill encompass a requirement and a mechanism for bringing the parties together before the decision then falls to the minister to determine based on the significant risk test? You have heard all the evidence along those lines?

CHAIR—The present drafting does recognise the present petroleum industry's rights. Why did we draft it that way? I think we know but, for the record, can we get that established?

Mr Miller—Yes, certainly.

Ms LIVERMORE—The present legislation contemplates the possibility of those agreements being formed but does not mandate a mechanism for that to take place.

Mr Miller—That is right. In approving greenhouse gas activities in offshore waters where there are established rights holders, we tried to find a balance between preserving those existing petroleum rights and allowing opportunities and processes that maximise the opportunity for a new entrant in this area to proceed and establish a business. To that end, where it cannot be proven that the rights of a pre-existing rights holder will not be impacted on, we do have the opportunity within the legislation for negotiations to result in an agreement which would be recognised and, therefore, allow the project to proceed. We did not formalise the need for this dialogue between the two parties because we felt that, if the rights of a pre-existing rights holder were going to be impacted on, requiring them to negotiate seemed to be a reduction of their established rights.

What we believe would happen in most of these circumstances is that the two parties would automatically negotiate on a civil level if a new project proponent was coming into an area and the incumbent had genuine concerns, as has probably been seen in other jurisdictions discussed at this meeting. These boys are grown-ups and they will discuss this on a civil platform: 'These are my issues. Your project as it is configured at the moment is going to impact on us because we believe you have underestimated this'—or overestimated or what have you. That would be enough for the new proponent to go away and think: 'We know what their concerns are. What happens if we do it this way?'

This is all done on a civil level anyway. We believe this will happen inherently between any two parties where there is common use of an area. The need to prescribe negotiations may have merits in a situation where there are ulterior motives for vetoing a new activity within an area—that is, where parties are not acting in good faith. I would temper that by saying that, if such a requirement were explicit in legislation, it would need to recognise the incumbent's rights. It would be preferable that it would develop without reducing those rights and with an intent to encourage a dialogue that would naturally occur anyway in most cases.

CHAIR—What happens if the goodwill passes by and the minister says it is in the interests of the public that we inject CO2 there and the present petroleum operator says the pressure is going to blow the head off a well and that could be very bad for the people working on the platform, as well as causing a loss of production et cetera. What do we do with that?

Mr Miller—I feel that the framework of the legislation preserves pre-existing rights. If there is a significant risk of an event like that happening, and the minister makes a decision based on the national interest, what we have there is in fact a severe erosion of existing rights. If the government were to adopt that policy I think they would need to weigh up the national interest against the sovereign risk both within the petroleum industry and potentially more widely.

CHAIR—A bold minister, Mr Miller.

Mr Miller—Absolutely—and an informed minister. I understand that we do have a national imperative to reduce our emissions, and offshore storage is one of many options, but we also have an obligation to maintain our international competitiveness.

CHAIR—Of course we do. There are a number of pre-existing petroleum tenures out there. Do you see those becoming fewer in the future?

Mr Miller—Pre-existing exploration tenure is designed to be reduced every five years—by 50 per cent, I think. In terms of exploration tenures, which are by far the majority of the pre-existing tenures, they will either progress to production activities or, more likely, because of the nature of exploration as opposed to production, will drop off the radar and enter the post-commencement world. I believe in the future there will be just as many petroleum tenures out there, because as they drop off they are recycled and taken up again.

CHAIR—By somebody else?

Mr Miller—In a post-commencement framework, yes. With the production licences it is more a case of how long it will take for those activities to be completed. They are not time limited. As long as it is economic to produce the resource that is there, those production licences will continue. Estimates on current planned projects talk in terms of 40 or 50 years.

Ms LIVERMORE—I want to move to the whole question about integrated projects and your understanding of how the bill in its present form does facilitate the objectives that those witnesses are trying to achieve or what would need to change in the bill to allow that to happen.

Mr Miller—With petroleum injection and storage rights, our philosophy in designing the bill was to maintain their rights as they currently stand. Subject to approval, petroleum operators can already inject and store CO2 that is derived from production within a production licence as long as it is stored within the same production licence—that is, a single production licence can inject and store its own CO2.

Ms LIVERMORE—Does that extend to the CO2 that is produced in a liquefaction, if that is the right word?

Mr Miller—If a production licence produced petroleum that had CO2 in it and it then processed it to strip off the CO2 and injected it back into it, that is an existing right, yes. When designing the legislation, the preservation of that existing right was considered to be important, and after some very good discussions on this one it was decided that that right should be maintained within the petroleum regulatory sphere—that is, it would not be a requirement for them to get an injections licence for that activity.

Ms LIVERMORE—And they are not storing it?

Mr Miller—No, even if they are storing it in that case. What we did write into the legislation was the opportunity for that activity to come under an injection and storage licence if the proponent so wished. It was not obligatory, but our rationale behind offering that specific, current right to have a non-competitive injection licence was just in case there were external drivers into the future that only recognised such things as injection licences for the purposes of abatement credits or what have you. So that is, as we see it, the current right.

What is happening in the petroleum industry and what will be happening in the future is that there is going to be a strong push towards these integrated developments. That is recognised. It is more economically viable for a number of different production licences with a resource to have their processing at one central facility. Therefore, this is probably the way petroleum rights will

go. Whether this automatic non-competitive right to store the CO2 derived from these multiple deals should become a right is a very interesting question.

Ms LIVERMORE—The question of integrated projects was raised by operators of the North West Shelf and of other fields—the Browse field et cetera—off Western Australia. They have been put together as integrated projects from the start. If you set up a mechanism that facilitates what is happening over there, do you then create a situation where companies can start calling what they are doing in the Bass Strait and in the Gippsland Basin integrated projects and make competing rights an even worse or more difficult issue to resolve?

Mr Miller—That hits at the heart of our hesitancy in expanding rights, to be honest. If you have a look at the two scenarios that have been discussed most at these hearings—what is happening in the Bass Strait and off the coast of Western Australia—and look at the concept of integrated projects in the north-west of WA, where there is very little onshore competition from sources such as coal, there are clearly defined ownerships, partnerships and joint ventures. These parties have set very good examples on how different entities can work collaboratively in the same area. The concept of an integrated project is a very clean—and could be a rigorously defined—activity that makes logical sense. But at the fringes there is a whole opportunity, I believe, to exploit such a concept and to provide a competitive advantage to an incumbent petroleum holder that could be quite extensive if manipulated in the right way in other areas.

Mr SIDEBOTTOM—You have heard several submissions on site closure requirements. One of the first issues is that the proposed legislation does not prescribe a fixed term closure period. For the record, I would like to know, firstly, why, and, secondly, whether any other closure models were explored by the department and the drafters of the bill and, if they were, why they were rejected. You have heard from several submitters that they believe the uncertainty in the closure period makes the investment in greenhouse gas activity less attractive. No doubt you took that on board when you did this. I am interested in knowing, for the record, why it lacks that prescribed fixed tenure or fixed period of closure.

Mr Miller—The greenhouse gas injection and storage industry is a new industry. There is a lot of uncertainty in every specific case as to what will be the long-term fate of the substance, particularly as it will not be until the injection is started that you will obtain an initial awareness of whether your modelling is consistent with what is going on. And it is not until you finish injection that you can really start to get a thorough understanding of what the long-term fate of that substance will be. For that reason, the establishment of a fixed term closure period would have to be quite extensive—let us start at 50 years—to reflect our uncertainty. If it were any shorter than an extensive period, we would basically be saying, 'If there is still a large degree of uncertainty at that closure point, is the government going to accept that risk?' Each site will be different. So for some there might not be any uncertainty at a fixed point closure period; for others, there might still be a large amount of uncertainty and potentially a large amount of risk through lack of knowledge or some event that may be coming up in the migration pathways future.

CHAIR—We have heard the US and the European Union saying that they will accept the liability from the public's point of view.

Mr Miller—Yes. If you have a project where there is a high degree of confidence in long-term fate, I can understand how that would not be a significant position to take. But if you are saying that you have a fixed term and that, at the end of that term, the government is going to take over the liability and there is still a high amount of risk with that project—for example, there may be some uncertainty with a geological structure and the migrating fluid will intersect in 20 years time—the government could be accepting a liability of unknown quantity. We would argue that, even if the government wanted to accept liability, we would like to have some estimate of what we are in for, preferably by the people who are experts in the area, who have done their work and who know what is going on.

The other thing that I just want to quickly stress is that, by not having a fixed term closure period, you are encouraging proponents to commence their closure planning right at the grant of the injection licence or even prior to that in some cases. What they will be doing as they are injecting and storing is ongoing liaisons with the regulator—for instance, saying: 'This is what our modelling is predicting. Are we all happy with how this modelling is going?'—so that, by the time the injection and storage is completed, what you have between the operator and the regulator is fundamentally a shared understanding of that long-term fate. They have had these years of injection to build up comfort that they know what they are doing. So, if this collaboration is ongoing and if the long-term fate is known, the tail on the closure period should not be that great. The perception that seems to have come out here is that this will be as long as a piece of string. I would argue that, in most of the early movers, particularly in nice constrained reservoirs, we are probably shortening the post-injection closure period by having this process in place rather than setting an arbitrary period.

CHAIR—Thank you very much for all the work that the department has done in getting this proposal to where it is. We may need to contact you for further information as we progress our report. You will have access to the transcript.

Resolved (on motion by **Mr Sidebottom**):

That this committee authorises publication, including publication on the parliamentary database, of the transcript of the evidence given before it at public hearing this day.

Committee adjourned at 11.23 am