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## SENATE

STANDING COMMITTEE ON ECONOMICS

**Reference: Exposure drafts of the legislation to implement the Carbon Pollution  
Reduction Scheme**

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**SENATE STANDING COMMITTEE ON  
ECONOMICS**

**Monday, 30 March 2009**

**Members:** Senator Hurley (*Chair*), Senator Eggleston (*Deputy Chair*), Senators Bushby, Cameron, Furner, Joyce, Pratt and Xenophon

**Substitute member:** Senator Crossin to replace Senator Furner on 31 March, 1 April and 8 April 2009

**Participating members:** Senators Abetz, Adams, Back, Barnett, Bernardi, Bilyk, Birmingham, Bishop, Boswell, Boyce, Brandis, Bob Brown, Carol Brown, Cash, Colbeck, Collins, Coonan, Cormann, Crossin, Farrell, Feeney, Fielding, Fierravanti-Wells, Fifield, Fisher, Forshaw, Furner, Hanson-Young, Heffernan, Humphries, Hutchins, Johnston, Kroger, Ludlam, Lundy, Macdonald, Marshall, Mason, McEwen, McGauran, McLucas, Milne, Minchin, Moore, Nash, O'Brien, Parry, Payne, Polley, Ronaldson, Ryan, Scullion, Siewert, Stephens, Sterle, Troeth, Trood, Williams and Wortley

**Senators in attendance:** Senators Bushby, Eggleston, Furner, Hurley, Joyce, Pratt and Xenophon

**Terms of reference for the inquiry:**

To inquire into and report on:

Exposure drafts of the legislation to implement the Carbon Pollution Reduction Scheme

**WITNESSES**

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**Committee met at 10.04 am**

**CHAIR (Senator Hurley)**—This is the final hearing of the inquiry of the Senate Standing Committee on Economics into the exposure drafts of the Carbon Pollution Reduction Scheme legislation. On 11 March 2009 the Senate referred the exposure drafts to the economics committee for inquiry. The drafts reflect the government's white paper on climate change released in December. These documents affirm the government's commitment to a medium-term target range of reducing emissions by five per cent to 15 per cent of 2000 levels by 2020 and to a long-term emission reduction target of 60 per cent below 2000 levels by 2050.

The government has released six draft bills for public comment. The Carbon Pollution Reduction Scheme Bill 2009 is the main bill and covers the arrangements for the scheme. A second bill relates to the consequential amendments needed to the National Greenhouse and Energy Reporting Act 2007. The Australian Climate Change Regulatory Authority Bill 2009 will establish the authority which will administer the scheme. The remaining three bills are technical bills in case the charges for the permits issued are at some time considered taxation. This inquiry will focus on issues relating to these bills. A separate Senate inquiry will consider aspects of climate change policy more generally. The committee is due to report to the Senate by 14 April 2009.

These are public proceedings, although the committee may agree to a request to have evidence heard in camera or may determine that certain evidence should be heard in camera. I remind all witnesses that in giving evidence to the committee they are protected by parliamentary privilege. If a witness objects to answering a question they should state the grounds and the committee will determine whether it will insist on an answer. If it does, a witness may request that the answer be given in camera. I remind committee members that the Senate has resolved that departmental officer shall not be asked to give opinions on matters of policy and shall be given reasonable opportunity to refer questions to a superior officer or to a minister. This resolution does not preclude questions asking for information on policies or factual questions about when and how policies were adopted.

[10.06 am]

**COMLEY, Mr Blair Robert, Acting Secretary, Department of Climate Change**

**SAKELLARIS, Mr Tas, Assistant Secretary, Legal and Governance Branch, Department of Climate Change**

**STERLAND, Mr Barry, Acting Deputy Secretary, Department of Climate Change**

**CHAIR**—I welcome representatives from the Department of Climate Change. We will start with questions from Senator Furner.

**Senator FURNER**—Listening to witnesses' evidence last week, I developed a whole host of questions. Firstly, if the CPRS were not passed and the government still had an obligation to reduce Australian emissions under the Copenhagen agreement, what kinds of measures would the government have at its disposal instead? At least one witness last week indicated we should go to Copenhagen with no position.

**Mr Comley**—In principle, there is a broad range of policies that would be available to government to meet emissions targets. You could go down the part of a market based scheme—that is, either a CPRS style scheme or a carbon tax. If those had been rejected, other policies available would be mainly regulatory policies. These are the sorts of policies that to a large extent have been pursued to date in the climate change mitigation area. They could include things like imposing regulatory restrictions on large or significant projects or moving to more command-and-control measures that might limit or ban certain activities. Where any government or future government may go in that area is very much a set of policy questions. If the CPRS were not imposed, you would need to look at successively more restrictive regulatory measures to achieve any target, or you could do it on the outlay side.

To put that into context, the government has announced energy efficiency measures that were part of the stimulus package. These were estimated to make a contribution to reducing emissions by around five megatons a year. If you looked at the government's target of minus five per cent by 2020, you would need policies that would deliver around 135 megatons of emission reductions. If you are looking at the minus 15 per cent target, it is more like minus 195 megatons. So it really would be a policy question, but with a comprehensive CPRS you would need a very extensive suite of measures to achieve the sorts of reductions are being considered within the government's target range.

**Senator FURNER**—My next question is based on the assertion by a number of witnesses that the CPRS put forward in Australia would put us well ahead of other countries tackling climate change. I am wondering whether you could talk us through some of the policies of our major carbon emitters in countries such as Brazil, Canada, China, the EU as a whole—which includes France, Germany, Italy—Indonesia, Japan, Mexico, Russia, Korea, South America, the United Kingdom and the United States?

**Mr Sterland**—There is quite an extensive range of emission reduction policy in a number of the countries you mentioned, and all of them have measures of some sort. Starting with the European Union, it has an emissions trading scheme in place. It covers less than half of emissions there, but it is still well up into the 40s. They have a range of measures alongside that, including renewable energy targets. They have energy transport efficiency measures, regulation of fuel efficiency in their transport sector. Their publicly stated objective is to reduce emissions between 20 per cent and 30 per cent on 1990 levels. Of course, they are subject to much less population growth than Australia, and are also starting from a lower base in their efforts due to issues that happened in the 1990s in the structure of their economy, with the fall of the Berlin Wall and the de-industrialisation that happened in some parts of Europe as a result of that. Individual member countries are part of that broader scheme and there are a number of non-EU countries that have joined the European Union scheme as well.

**CHAIR**—Sorry? There are non-EU countries that have voluntarily joined the scheme?

**Mr Sterland**—Yes.

**Senator FURNER**—Could we possibly get a list of those as well?

**Mr Sterland**—Yes, we could provide that on notice. Off the top of my head, I think Norway is a key country that has joined that scheme.

As you would be aware from the newspapers, the US is currently in the middle of a debate at the federal level about whether to proceed on the policy there, but the Obama administration has announced a clear objective to introduce a cap and trade scheme and has announced emission reduction targets. They are the new developments at a federal level. At the federal level there have also been a number of policies surrounding transport, fuel and that sort of thing. But at the state level in the US, and the provincial level in Canada, there has been a number of countries introducing cap and trade schemes, or who are in the process of introducing them, as well as regulatory measures in states like California that combine regulatory measures with their cap and trade. That is a development that is recent and I think that is motivating a lot of the further action at the federal level to think about this.

Japan has a range of measures. They include the voluntary emission reduction measures, improvements in energy efficiency in homes, promotion of measures for alternative energy. Japan last year announced a domestic emissions reduction target of between 60 per cent and 80 per cent of current levels by 2050. The Japanese are considering emissions trading: the former Prime Minister announced a voluntary emissions trading scheme and they wanted to include as many sectors and companies as possible. They have also trialled emissions trading through a number of previous measures.

As I think we indicated in our discussion last time, the election of the Obama administration in the US has caused Canada to think about their emissions trading policies going forward. They had an existing range of targets and a combination of measures that included some elements of emissions trading and some elements of regulation and direct price setting on carbon emissions. They had a policy to reduce emissions intensity from 2006 levels by 18 per cent and with reductions after that. They have indicated, following the visit of Obama, that they are currently

thinking about their broad range of climate policies given the importance of the US as a trading partner.

So they are some of the key developed countries. You also mentioned a range of developing countries in your question.

**Senator FURNER**—Like Indonesia, Mexico and South Africa.

**Mr Sterland**—Yes, Brazil and those sorts of countries. All of them are thinking about and implementing policies. Brazil, for example, has policies relating to their own circumstances on biofuels, mandatory efficiency standards for household appliances and the like. They have also been thinking about and committing to reductions in deforestation. China is the second largest greenhouse gas emitter, although in the past year there have been some reports suggesting it is now the largest. They have a reasonably comprehensive climate change policy that they released, and they are working on a range of fronts, including improved energy efficiency in building construction—they are quite interested in that area—in developing renewable energy, increasing forest cover. They have an objective of reducing energy intensity with a target of a 20 per cent reduction within five years. They have recently had enacted renewable laws that are increasing the share of renewable energy in their grid. So they have a range of measures.

Indonesia are focused on deforestation. That is the largest source of emissions in Indonesia, and they have been working very productively with Australia on that issue. They have announced targets to reduce energy sector emissions 17 per cent below 2006 levels over coming years. Their targets are dependent on separate moves to shift the energy mix, but they are pushing ahead with that. They are a leader amongst developing countries in international efforts to reduce emissions from deforestation and forest degradation, so they have been one of Australia's most active partners in that area. It is probably worth stopping there. That is a brief survey; we would be happy to provide more information on notice.

**Senator FURNER**—That would be good.

**Mr Sterland**—A number of the advanced economies have very significant policies. The developing economies have quite pervasive policies in a range of areas—Professor Garnaut made this point. The more advanced developing countries, such as South Korea and South Africa, are beginning to put quite ambitious policies on the table that are looking much more like those the advanced economies have been considering. South Korea is quite interested in emissions trading, and South Africa recently announced that it has a very comprehensive emission reduction scheme. They are aiming to stop emissions growing by 2020 to 2025, so they are committing to a peaking and then a stabilisation for 10 years and then declines in absolute terms. As far as I understand—and I am not an expert on the international scene—it is a very significant step for an advanced developing economy to start putting that sort of language into the international debate. The debate going forward is a very important step.

**Senator FURNER**—The next question is related to a specific group of members from the Australian Industry Group. On Friday, when they appeared in Sydney before the committee, they indicated that most of their members, who are in the manufacturing area, were going to be disproportionately affected by the CPRS. I am just wondering whether you could talk us through the kinds of impacts these firms will face and how those impacts will compare with other costs

that these kinds of businesses face with changes to the exchange rate and also how the climate change action fund will assist those businesses.

**Mr Comley**—The first point to make about AiG is that they have quite a diverse membership, so to talk about the AiG as one group is probably a little misleading in this area. The AiG's membership spans from quite emissions-intensive producers, such as steel producers, down to small-scale manufacturers. Broadly, manufacturing is not very emissions-intensive. For example, things that people often think about as emissions-intensive, such as car production, come a long way down the list of industries that have emissions. There were tables that gave some data on that in the green paper. I think they rank somewhere between 80th and 100th in terms of the list of emissions intensity for industry.

For general manufacturers that do not have significant greenhouse gas emissions from things like steelmaking, the overall impact of the scheme will be quite modest. Essentially the total impact of their emissions is small, so their potential permit liability or indirect costs are likely to be small. Some of those manufacturers may in fact benefit from the scheme. You made the point in your question about the impact of the exchange rate on this. The Treasury modelling indicates—and I think all comparable modelling of this type will indicate—that you would expect a modest exchange rate depreciation as a result of the introduction of a scheme like this, so those that are not relatively emissions-intensive can in fact gain more from the exchange rate effect than they will face in additional costs.

Within the AiG membership there are some quite large emissions-intensive emitters, and they would be picked up by the emissions-intensive trade-exposed assistance that is provided under the white paper model. The most emissions-intensive, who have an emissions intensity above 2,000 tonnes per million dollars of revenue, would benefit from the 90 per cent rate of assistance. Those between 1,000 and 2,000 tonnes per million dollars of revenue or the equivalent in value-add, would benefit from the 60 per cent rate of assistance. So the AiG membership is quite diverse, and the general manufacturing sector is not particularly emissions-intensive. Things like steelworks are quite emissions-intensive but are subject to the emissions-intensive trade-exposed assistance.

It is perhaps worth noting that I believe that when Peter Burn of the AiG gave his evidence he made the comment that a number of his members thought they would be liable parties but are unlikely to be so. I think this highlights that there is still some education and information that needs to be provided about what precise liabilities and engagement with the scheme there will be. Clearly, the fact that only around a thousand firms will be liable under the scheme means there is a range of people who are concerned about the direct impact of the CPRS and that they are likely to be liable. The government has announced the Climate Change Action Fund, which is partly to address those information issues but will also provide some direct assistance which is primarily targeted at those not covered by the emissions-intensive trade-exposed assistance. So those AiG members that would fall outside of the assistance regime under the emissions-intensive trade-exposed program would potentially benefit from the Climate Change Action Fund, which includes a range of grant programs to businesses affected by the introduction of the scheme.

**CHAIR**—Can I interrupt there and ask: when will the authority be set up and will it have any adjudicative role?

**Mr Comley**—Yes. The authority cannot be formally established until after the legislation has been passed, but we are already within the department effectively setting up a protoregulator so that it can be immediately established and hit the ground running. It will have a substantial information role with businesses. Certainly the model that we have in mind is that the regulator will take a constructive role with businesses and will help them through the needs of their compliance. At one level that has already commenced, because the National Greenhouse Energy Reporting System, which commenced 1 July last year, has already registered firms for compliance with emissions reporting. That becomes the platform for the emissions trading scheme, the Carbon Pollution Reduction Scheme, and there is already a dialogue among a number of firms and the Greenhouse Energy Data Office about how we can comply with NGERs, which becomes the platform for the Carbon Pollution Reduction Scheme. The regulatory force at the start will very much be education and assistance to make sure that people understand the obligations of the scheme.

**Senator XENOPHON**—I would like to ask you a question about the Climate Change Action Fund, because I think that you are aware that there is a debate among some of the subset of potential losers. Some—and these happen to be the more intensive emitters, by the way—are shielded through compensation with the ETS and some are perversely not because of the way of the scheme is designed. So there is that argument. Are you saying that for those who are relatively less intensive emitters and who miss out on compensation that the Climate Change Action Fund is an alternative method of compensation? If so, how would it give some certainty to those industries in that transitional period?

**Mr Comley**—It certainly is an alternate method for providing assistance to manage the transition. The scheme was always set up with the view that it was primarily targeted at those who were not the emissions-intensive trade-exposed. Some of that assistance may be in education which helps them, for example, reduce their carbon pollution. Some of it may be in grants programs that allow them to invest in equipment and technology which allows them to have a lower carbon footprint. The precise details of that scheme have not been finalised; there are consultations going on. But it is certainly primarily targeted at those who are not in the emissions-intensive trade-exposed category.

**Senator XENOPHON**—But it is acknowledged that there are some perverse outcomes in the sense that those who are relatively less energy intensive miss out whereas the more intensive ones do get a level of compensation?

**Mr Comley**—I would not refer to it as a perverse outcome. The basic point is that, in designing the emissions-intensive trade-exposed assistance, the government had to settle on a materiality threshold about how significant it is before you have the assistance. That threshold is a thousand tonnes per million dollars of revenue which, at a \$25 carbon price, translates to about 2½ per cent of revenue. People who are below that will be facing some cost impact. That may be offset by their capacity to reduce carbon pollution or it may be offset by, say, the exchange rate, but, for those, the Climate Change Action Fund was intended to be targeted to provide assistance to manage transition for those firms.

**Senator FURNER**—We have heard a lot through the inquiries about the varying ranges of jobs. As late as Friday we heard of the substantial number of jobs that the CPRS has already created in the green industries. I think one witness indicated that there will be up to 185,000 jobs

created in the green industries. Can you inform us of any predictions of job creation and in particular the skill requirements for upskilling in those jobs? Conversely, how many jobs may be lost as a result of the CPRS?

**Mr Comley**—The broad story here is that we would not expect the total number of jobs gained or lost to be very large at all. I think what people often are referring to is the estimates of a particular gain or reduction in one sector. The Treasury modelling demonstrates that over time the employment levels are broadly unchanged; there is just a switch from some areas of employment to other areas of employment when we move away from high-pollution ways of conducting those activities. That switch is relatively gradual because the scheme has been deliberately designed with a trajectory that is taking account of that economic transition. Broadly you would not expect a large change in employment over all.

The Treasury modelling does not pick up precisely the detail of the skill mix level, but there are a number of areas where you would expect the skill mix to be broadly similar. For example, if you are building less coal fired power stations over time, those engineering skills would be readily adaptable to either a lower pollution gas turbine or the renewables sector.

**Mr Sterland**—Employment overall in a trend sense in the Treasury modelling grows over the years. The Treasury modelling found that all major sectors continue to have employment growth. So the structural change happens over time and reflects, as Mr Comley talked about, the different incentives that come from the scheme. The broad message that employment is broadly similar under the scenarios is one of the findings.

**Mr Comley**—I will expand what Mr Sterland is alluding to. The way the art of modelling is done is to calculate a reference case of what would have happened without the scheme and to then compare that reference case. That is where you often hear quotes about reductions. That is typically off a reference case that is often growing quite strongly. There can still be absolute increases in jobs in those sectors that are growing more slowly than they otherwise would in the reference case.

**Senator EGGLESTON**—First of all I would like to ask about the scheme design. There is a strong view among various people concerned with this issue that the cap and trade proposal will not produce a net drop in emissions in Australia and will overall increase emissions in the world because Australian emitters will simply buy credits from Third World countries. That is an issue that concerns many people if the real objective of this proposal is to reduce emissions significantly. Why should Australia not just introduce a carbon trading scheme, which many people feel would be a simpler, more efficient and less cumbersome system for this country to have? It would mean that we could do our bit to reduce carbon emissions while the countries around us, such as Indonesia and the South-East Asian countries with whom we principally trade, may take a long time to develop ETSs.

**CHAIR**—Senator Eggleston, you are asking whether we should have a carbon taxation system rather than the emissions trading system?

**Senator EGGLESTON**—That summarises my question, yes, thank you, Chair.

**Mr Comley**—Before the chair’s clarification, I thought the question might have been slightly different: why would you not have cap and trade but not allow international trade in permits?

**CHAIR**—I think Senator Eggleston was talking about taxation, but if you would answer your own interpretation as well, that would be good.

**Mr Comley**—I am happy to answer both questions.

**Senator EGGLESTON**—If you would answer both questions, I would be interested to get the answers on the record, but I am principally seeing a carbon tax as a better alternative.

**Mr Comley**—I will start with the carbon tax question, which I think we traversed last time. Essentially, you can take a carbon tax approach or you can take a cap and trade approach. If they are designed with similar design features, they can deliver broadly similar outcomes. The principal difference is that the carbon tax provides no certainty about the total quantity of emissions that go into the atmosphere. It provides certainty about the carbon price imposed on businesses. In isolation, that is the central difference. If you want to ultimately hit a particular emissions target, then you would need to change the carbon tax rate until it hits the level that reduces emissions. That would have to go back to parliament on a regular basis in light of the emissions targets and to be adjusted. Because the international architecture has coalesced around emissions targets, the cap and trade scheme tries to target directly the thing that is going to be the international obligation, which is a quantitative target for emissions entering the atmosphere.

Directly related to that, the international architecture has coalesced around countries being able to meet their international obligations by purchasing genuine abatement in other countries and this is really recognition that at the international level there is significant understanding that the different countries will have different costs associated with reducing emissions. So by allowing trade in permits in international credits, you can seek out the lowest cost form of abatement around the world. This is a general recognition that for the very ambitious targets that will be required over time to meet the environmental objectives, it is going to be necessary to do this at the lowest cost possible to maintain community support and momentum for emissions reductions.

If I bring that back to the question of why you would not have either a carbon tax where you did everything domestically or a cap and trade scheme with no trade in international permits, there are really two basic reasons why credits are allowed. The first is that without trade in credits the economic cost to Australia of meeting any emissions reduction target would be higher. It must be higher because you are essentially removing the capacity to access lower cost abatement. That is very important because, provided you are buying abatement that is a genuine reduction—and the systems are set up to have tests to show that they are genuine abatement and the government has stated in its policy that it will impose qualitative limits on international permits to ensure only genuine reductions in emissions elsewhere in the system—you lower the cost of achieving a given emissions target if you do not allow the trade in credits.

The second point is related again to the international architecture. Ultimately, the objective of reducing emissions must be a global objective and the key thing to delivering a global objective is to increase the chances of cooperation and goodwill and improve the chances of getting a sound international agreement with ambitious targets. The trade in credits is part of that capacity

building, that building of trust that facilitates the development of an international system that will ultimately produce much stronger reductions in emissions. They are the key reasons: domestically allowing trade in credits reduces the economic costs of any given target and internationally it supports the development of an international architecture that will ultimately contribute to meeting the global objective of reducing emissions.

**Senator EGGLESTON**—Thank you. My view remains that the idea of having an international agreement to reduce emissions is an ideal which is a very long way away. The argument that we should seek to enable Australian industries to purchase genuine emission reduction producing credits from other countries, to me, also has a very hollow ring about it. I have a feeling that, while there is a great deal of idealism in this, there is not going to be very much practical reality in countries like Indonesia, for example. While going down a carbon reduction path or introducing emissions trading schemes is a very grand vision, in practical reality it is not going to work very well. If we in Australia really want to do something about our own carbon emissions then let us do it domestically and have a carbon tax. I do not see the other issue that you raised—about the need for the parliament to periodically vary the taxes—as such a big hill to climb. That could be done on an annual basis in the budget as a matter of course. So it is not such a big issue. It is put up as a huge obstacle but I do not think it actually is one.

What I am concerned about is that people seem to have run away with idealism, imagining that countries in East Asia, Africa and South America are going to get into emissions trading schemes and that we in the developed world can assuage our consciences by purchasing ‘genuine credits’. But I suspect that, somehow or other, all that is going to happen is that the level of emissions in the world will continue, our costs will go up and we will lose jobs in Australia as a result if this scheme progresses. However, I remain committed to the concept of a carbon trading scheme. The other thing that I would like to talk about is renewable energy targets. We have an MRET of 20 per cent, as I understand it. I find it hard to see how that can be achieved given the limitations on renewable energy sources within Australia. I would like you to comment on that for the record.

**Mr Comley**—I will comment on the MRET in a second. Picking up on your observations about whether this is idealistic, I think there is a real question about the way in which these international credits are created at the moment. It is not mandatory that developing countries create them. There is an option under the Kyoto architecture to create them, so countries can opt in on a project by project basis where they believe it is in their broader policy and financial interests and where it can be demonstrated there is genuine abatement. It may be the case that emissions continue to rise in those countries. In fact, in many cases they will almost certainly continue to rise. But they will be rising at a lower pace than they otherwise would, which is genuine abatement in terms of what the atmosphere will see from the world. I take the view that this is quite a pragmatic response to the way in which the world is emerging. This response says: where we can engage constructively with developing countries in terms of a mechanism which they see as mutually beneficial, that helps build trust and is a pragmatic stepping stone to a more comprehensive global agreement.

You also raised the question of jobs. The thing that is going to drive the speed of the economic transformation in Australia is the carbon price or the carbon tax rate, if you were to have a carbon tax. In most scenarios it is clear that not allowing the trade of international permits will result in a higher carbon price than you otherwise would have. That will lead to a speedier

transition of the economy to a lower carbon pollution future, but that speedier transition can be more difficult in some circumstances.

**Senator EGGLESTON**—What are your comments about the McKibbin hybrid model?

**Mr Comley**—Warwick McKibbin has been putting forward that model for some time. It is in many respects a perfectly respectable model. The issue is that it is not really consistent with how the international architecture has evolved. If you were to ask Warwick McKibbin the question directly—and I am not inaccurately putting words in his mouth, because we have had a discussion about this in recent times—he would fundamentally say that you should not have a quantity based target at the end of the day and that you should have a target that you would then allow to be breached if it turned out that the costs of meeting that target were higher than they were thought to be or were higher than you would be prepared to accept. At one level, if the international community a decade or more ago had gone down the path of embracing a McKibbin style model then you could have contemplated that. But that is not the direction the international community took. It went towards negotiating in terms of fixed commitments and in terms of quantities, and that is the most likely outcome in the foreseeable future. I do not think there is anything wrong theoretically with Warwick McKibbin's model, but it really is fundamentally not putting an absolute emissions constraint on the world.

**CHAIR**—What about the separate idea that there be a central banking of the permits so that you would not be subject to the instability of other countries?

**Mr Comley**—If you had a central Australian bank of carbon or something equivalent to it, you would have a genuine issue associated with what powers you would want to delegate to that bank. I think the analogy here is: when you set quantity targets in a cap and trade scheme or you set a carbon tax rate explicitly, that is very much akin to setting a tax rate in the rest of the political discussion. It would be very unusual to delegate that power to an independent body. To delegate that to a new institution would be a significant leap to take. That is a judgment you could make, but it is not typically the sort of decision that would be allocated to such a body. In the same way that a number of people have advocated an independent body to run fiscal policy and countercyclical policy, typically the decision is that that should rest with parliaments. Regarding Senator Eggleston's comment about whether it is a significant concern to have to change the tax rate in the parliament, clearly it can technically be done. The technical issue that arises, though, is: what level of investment certainty does that provide to business? In the case of a cap and trade scheme, you can have a cap set, you can have trading permits and you can also have associated financial markets that allow businesses to hedge against the likely future carbon price. It is highly unlikely that you would get an equivalent associated financial market for a carbon tax. I am not aware of any financial markets in the world that are essentially about changes in tax rates by government.

**Senator EGGLESTON**—You were also going to speak about renewable energy.

**Mr Comley**—The government and the department commissioned quite a substantial amount of modelling on the 20 per cent renewable energy target. It models the electricity market in some detail, looking at the costs of various technologies and their capacity to be deployed. That modelling indicated that it was certainly feasible to reach the 20 per cent target by 2020.

**Senator EGGLESTON**—As I have said before, I am surprised by that, given the limitations on sources of renewable energy available in Australia. I notice that in some of our papers France is listed as the country with the lowest emissions profile in Europe. Its power base is very largely nuclear. Wouldn't it be simpler if we began retiring coal fired power stations and introducing nuclear power for our baseload electricity in this country?

**Mr Comley**—Clearly, that is a large-scale policy question. I am not really going to comment on the desirability of introducing nuclear power, except to say that when Professor Garnaut looked at this question the observation was made that, given the endowment base of Australia, it was not as obvious that you would necessarily, even on a pure cost basis, embrace nuclear as a technology that would outperform some of those others over time.

**Senator PRATT**—Without the CPRS what is likely to happen to our emissions?

**Mr Comley**—The first question was about alternate policies, but if there were no other alternate policies put in place the business as usual projection for Australia is that we would be at around 120 per cent of 2000 levels at 2020. Broadly, the trend is emissions growth of about one per cent per year each year. That is the trend for emissions growth over time. It is perhaps worth explaining that that growth to 120 per cent of 2000 levels by 2020 already incorporates other measures such as the renewable energy target of 20 per cent by 2020. So, broadly speaking, the trend growth in emissions of about one per cent per year is what you would expect in the absence of a major mitigation policy.

**Senator PRATT**—So that is even including the MRET?

**Mr Comley**—Yes, even including the MRET; that is right.

**Senator PRATT**—What would that look like with the other options that you said we could have—regulation or banning investments? Can you create an emissions trajectory based on these things or is it too difficult to do?

**Mr Sterland**—The 120 per cent business as usual number already includes not just the renewable energy target but a whole range of regulatory responses and other responses. Minimum energy efficiency standards and the like all contribute to achieving that 120 per cent. There are a lot of regulatory measures in there already. I do not have the figures at my fingertips, but the entire renewable energy target abatement contribution from memory is around 3½ percentage points of the emissions out in 2020. The previous question that Senator Eggleston asked was in relation to a measure that is contributing around 3½ per cent of emissions. In other words, without that measure those 2020 emissions would be up towards 124 or something like that.

Clearly quite substantial policy shifts are required to even register on a time like that two or three percentage points of emissions, let alone 25 percentage points of emissions, which is what is embodied in the minimum of the government's target range in 2020. So typically you find that other regulatory measures build up over time. When you change a minimum performance standard for a technology, obviously the extent to which that reduces emissions depends on people buying new parts of that technology. All the existing stock of technology is there. So to achieve big shifts would require regulation that starts to not only address new investments and

new purchases but look at existing plant. That is typically very difficult regulation to conceive and implement.

**Senator PRATT**—I would like to touch now on a few of the issues raised by different submitters as they gave evidence. Frontier Economics—and I assume you have gone through their evidence—said that it could achieve these cuts at a lower cost to the economy and impose no cost on households. They asserted that it would be, I think, about \$3 billion or \$4 billion cheaper than the CPRS and that households would not be affected. I want to know what your response to that assertion is. Is that possible?

**Mr Comley**—If you come to the assertion about the lower overall cost, we do not think that that is a credible result. The reason for that is that, when you look at economy wide costs for an emissions reduction target, if it is the same target, then all the areas where you can find low-cost abatement help you reduce the overall cost of doing that. If you adopt a model such as Frontier has in mind, you will reduce the increase in prices of electricity to households, but that in turn reduces their incentive to demand side measures to reduce their electricity use. So you have to throw the full burden on the electricity sector in terms of switching the types of fuels used. Certainly we think that the number of a lower cost cannot be right; there must be a higher cost of reducing emissions. The extent of that would depend on the specific design details of the scheme. We think that is the general modelling point.

Probably more significant, though, is that you can design a model like the Frontier model to get roughly the same emissions reductions; it can be designed. The difficulty is that in a modelling world there is actually no uncertainty about the cost of reducing emissions and the way in which firms will respond et cetera, so the way the modelling works is that it assumes away all that uncertainty and then imposes an emissions-intensity baseline to try to achieve a given reduction in emissions. That is fine in a modelling world; the problem is that we really do not have enough information to know precisely what the costs of reducing emissions will be in each particular sector. So, in an emissions-intensity world, if you go down that path you will have to observe what actually happens and then readjust the baseline to hit any particular target, which introduces quite significant uncertainty for business going forward.

The last point I would make is that the Frontier model would result in a lower direct change in electricity prices for consumers. But, of course, in that model, there is no revenue created in the purest form that is available to compensate households or smooth the rest of the transition. So, in a sense, the comparison between the white paper model and the Frontier model is that the Frontier model reduces the impact on electricity consumers but applies equally to low-income households and high-income households, who no longer have an incentive to reduce their use of electricity; whereas, under the white paper model, low-income households are able to be compensated—in fact, more than compensated—for the expected price impact. They will still have an incentive to change their use of electricity and reduce emissions, but they have the financial wherewithal to cover that without being worse off. Higher income earners will face a cost increase, but they tend to be people who are better able to take advantage of energy efficiency measures or try to reduce their carbon pollution.

**Senator PRATT**—If householders are not put in the position of assisting with the transition, because there is no real motivation for them to reduce their own emissions—because there is no

real price signal there—is that likely to create a greater burden for energy producers in having to pursue that?

**Mr Comley**—Yes it is, essentially because you throw the full burden of adjustment on that sector. Certainly all the modelling that has been done on these types of models versus a cap and trade indicates that the impact on asset values, the impact on existing power producers, is much, much more significant under these models than it would be under a cap and trade scheme.

**Mr Sterland**—Mr Comley has been using the electricity sector throughout as the example to illustrate administrative practicality. But, from our experience in implementing an actual scheme, moving an intensity based approach to other sectors would be very difficult, if not impossible. Basically, it would mean applying the approach that we are taking to the emissions-intensive trade-exposed sector—which is a concentrated sector, which is tractable and with which we are working very productively to derive baselines and that sort of thing—and moving that from several tens of activities to hundreds and even thousands of activities. To define all the manufacturing activities necessary to implement an intensity basis throughout the economy would be extraordinarily difficult and, I think, impossible. So that effectively then starts making you concentrate this on a small number of sectors, rather than having the broad coverage that a cap and trade allows to be feasibly implemented.

**Senator PRATT**—Thank you. David Pearce from the Centre for International Economics suggested that there has been more cost-benefit analysis of whether Canberra needs a new dam than there has been of the CPRS. Is that a fair assertion?

**Mr Comley**—That clearly is not a fair assessment. I have certainly never been involved in a public policy issue with this level of analysis. This does not quite work for you because you are on the phone, but Mr Sterland has next to him the stack of documents that has led up to this, which includes the white paper—he does not have the green paper there, actually—

**Mr Sterland**—This is a subset!

**Mr Comley**—the Treasury modelling, the report of the task group on emissions trading and the Garnaut report. I think any claim that this is an underanalysed policy is quite extraordinary.

**Senator PRATT**—I can actually see you on the video linkup in Perth. You cannot see me—which is probably a good thing because our teleconference started at 7 am, now that we are off daylight saving! My next question relates to the Coal Association. They told us that they were excluded from free EITE permits for political reasons. I want to know what you can tell us about their preferred alternative—how much it would cost, what abatement incentives would still be retained, if any, and what would happen to coalmines with an emissions intensity of 1,000 tonnes per \$1 million of revenue?

**Mr Comley**—My understanding is the Coal Association's preferred alternative is to be included in the emissions-intensive trade-exposed regime—

**Senator PRATT**—Yes, that is what they put to us.

**Mr Comley**—with some modifications, and I think that is important to acknowledge. The Coal Association recognise that a pure application of the ET model would not be appropriate for their sector. My understanding of their model is that they would take the emissions-intensive trade-exposed eligibility test on an industry basis. In their view, that would lead to them being eligible for 60 per cent of permits—a 60 per cent assistance rate. But, in contrast to the approach in the emissions-intensive trade-exposed in general, they would then consider going back to an individual mine by mine analysis of what the emissions intensity of a mine is and then apply a 60 per cent rate on a mine by mine basis. I do not have the exact cost of that in front of me. We can take that on notice, but as a rough order of magnitude it would be around at least double the direct assistance that is covered under the Climate Change Action Fund.

What that would do in terms of incentives is, first of all, provide significant assistance to mines with an emissions intensity below a thousand tonnes per million dollars of revenue. Other firms in the economy do not receive that assistance. The way that coal mining exists is that the level of emissions is primarily related to the geology of the coal seams, and that is effectively related to how much methane is released when you pull the coal out of the ground. What that would mean is that around 90 per cent of mines have an emissions intensity of below a thousand tonnes per million dollars of revenue. So those mines would receive a level of assistance which comparable firms in the rest of the economy with the same level of emissions intensity would not have access to.

**Senator PRATT**—What kinds of firms might those others be that have that same intensity?

**Mr Comley**—Some of them, for example, may have an emissions intensity as low as a car manufacturer or a processing plant or a range of things that might be in the general manufacturing sector that just use some electricity in producing their products but are not particularly emissions intensive.

**Senator JOYCE**—Which is the most energy efficient: rail, road, air or shipping?

**Mr Comley**—In what metric are we—

**Senator JOYCE**—In moving people around, which is the most efficient—to move them by air, by road, by rail or by ship?

**Mr Comley**—I do not know that answer off the top of my head. I can take that on notice.

**Senator JOYCE**—Do you think that air is more energy efficient than road or rail? You have all those documents. You have just told us that you have read them, and it is the most analysed package on earth. You must be able to answer that question. Or don't you know?

**Mr Comley**—I do not know the answer off the top of my head. That is why I am happy to take it on notice. I am aware that that question is actually not a straightforward one because, for example—

**Senator JOYCE**—It is pretty straightforward.

**Mr Comley**—you need to make assumptions about load factors and other things that impact on the energy efficiency of a particular mode of transport.

**Senator JOYCE**—This program has no effect on the global climate. It is about Australians supposedly leading the way. That is what it is all about, isn't it?

**Mr Comley**—The answer that Mr Sterland elaborated on earlier is that there are a range of countries taking significant actions on climate change.

**Senator JOYCE**—That is why we are doing it—because we in isolation are not going to change the globe, are we?

**Mr Comley**—I think we have answered in previous questions that obviously we need a global response.

**Senator JOYCE**—Which we are not getting.

**Mr Comley**—If I could come back to your mode of transport question, because I think it is—

**Senator JOYCE**—If you are brief, yes.

**Mr Comley**—It is an important point that no particular mode of transport is always going to be more efficient than the others. For example, in air transport, whether it is a short hop flight or a long haul flight does make a difference. What the Carbon Pollution Reduction Scheme tries to do is send a consistent price signal for the amount of pollution that is entering the atmosphere. So in a sense I, as a public servant, do not have to make that judgment the whole time. I send the right signal to a business that then has to take that into account when they are making a decision about how they move their freight or move people.

**Senator JOYCE**—What I want to know is, if we are leading by example, why do we have people flying from Canberra to Sydney—and they are parliamentarians? If we are leading by example and setting an example to the world, it is far more efficient to move them by road. Why don't we do it that way? Have you made a suggestion like that in your paper?

**Mr Comley**—I am not going to comment on government policy in terms of how people are transported for work. I think what we have in the paper is that there will now be a price signal that will be encouragement and will send a signal about the financial cost of doing this.

**Senator JOYCE**—But the taxpayer will pick that up.

**Mr Comley**—In the public sphere agency heads have obligations to spend public money in an accountable way and that will change the relative balance of particular transport modes.

**Senator JOYCE**—Surely it would be a brilliant example to the world and to all Australians if we start moving our heads of departments and our politicians by rail or road to Sydney rather than having them in short line air hops from Canberra to Sydney. That would be a great example for us to all follow, wouldn't it?

**Mr Comley**—I am not going to comment on that policy issue.

**Senator JOYCE**—How many people are going to lose their jobs because of the emissions trading scheme?

**Mr Comley**—We are not saying there will be job losses associated with the emissions trading scheme.

**Senator JOYCE**—So you are saying that there will not be job losses because of the emissions trading scheme?

**Mr Comley**—I am saying that the best analysis that we have in the Treasury modelling is that over time employment levels will be broadly unchanged.

**Senator JOYCE**—And you are saying that in the short term people are not going to make decisions which are going to be directly attributable to the ETS—that that will be the reason by which people, especially in the coal industry and the manufacturing industry, lose their job?

**Mr Comley**—I think it certainly will be the case that a range of people will make claims about the direct attribution of the Carbon Pollution Reduction Scheme to changes in jobs. That is not atypical. If you reflect on almost any significant policy change, a range of claims are made that attribute a range of things, including general circumstances, to a particular policy change, so I would not be surprised if a range of people make claims about the direct impact of the Carbon Pollution Reduction Scheme.

**Senator JOYCE**—So you are saying it is just a claim. It will be rhetoric; it will not be actuality. For instance, with the coal industry, which will have to pick up about \$5 billion over five years, it will just be a claim that they will have to lose jobs; it will not actually be a reason that they lose jobs?

**Mr Comley**—What I am saying is that there will be a range of claims and each claim will need to be subjected to some analysis as to whether it is attributable to the Carbon Pollution Reduction Scheme.

**Senator JOYCE**—You have the most analysed document of all time—you just told me so you yourself, Mr Comley—and it is sitting on the desk there with you. As Mr Sterland has said, it is only a subset of the documents, so surely, within your analysis, you would be able to tell me whether or not we are losing jobs.

**Mr Comley**—The clear conclusion from that analysis is that the aggregate employment effects of the scheme will be such that there will be no loss of jobs over the longer term.

**Senator JOYCE**—So if we can prove that that is fundamentally flawed and if industry can prove that it is fundamentally flawed, would that be a fair indication that your whole subset of documents—in fact, the documents in their entirety—are flawed?

**Mr Comley**—That is a hypothetical question.

**Senator JOYCE**—It is not if they prove it.

**Mr Comley**—Clearly, if evidence comes to light that is relevant for the policy, it needs to be taken into consideration.

**Senator JOYCE**—From the most analysed policy of all time, can you explain to me in your own words exactly how it will affect agriculture and how it will be played out in agriculture from the year 2015 on.

**Mr Comley**—The government has said it that it will consider whether agriculture will be included, and the inclusion will not occur until at least 2015.

**Senator JOYCE**—Let us say that they consider including it. I am in the agricultural industry and I have grazing cattle. I want to know exactly how this is going to play out on my farm. Roughly, what will happen?

**Mr Comley**—I am happy to explain the process we are currently going through, but that really is getting well ahead of where the policy debate is. The government has said that it will consider whether agriculture will be included and will do so by—

**Senator JOYCE**—A lot of people want to consider whether to buy a grazing property. They want to give consideration as to whether they should own it in 2015. How do we consider whether we should make that consideration unless we have the policy before us?

**Mr Comley**—I understand that that is a very valid concern about certainty about the future regime. The issue here is that there is a process in place, and that process involves quite extensive consultation with stakeholders. There are a number of tracks. Firstly, should agriculture be included in the Carbon Pollution Reduction Scheme?

**Senator JOYCE**—Was the answer yes or no to that?

**Mr Comley**—That is a question under government consideration.

**Senator JOYCE**—When will we get to the end of that consideration and get to an answer?

**Mr Comley**—The government said it will make its decision by 2013 so there is adequate notice, should it be included—

**Senator JOYCE**—So we just put buying a property on hold until then, do we?

**Mr Comley**—There is an uncertainty created by any change in the scheme, as there is about what other measures might be brought in.

**Senator JOYCE**—What magical thing is going to happen in 2013 so that we cannot make the decision now?

**CHAIR**—Senator Joyce, I think Mr Comley is trying to answer but you are badgering him bit.

**Senator JOYCE**—I am just trying to get through the questions quickly.

**Mr Comley**—The process is quite important because, as was laid out in the white paper, there are legitimate and sensible questions in agriculture about how you would cover agriculture within a Carbon Pollution Reduction Scheme. For example, a number of stakeholders that I have spoken to say that if agriculture were included within the Carbon Pollution Reduction Scheme they would prefer that the point of liability would be at the farm level.

**Senator JOYCE**—Let us say that they are included; exactly how would that work? As a hypothetical, let us say that they are in; what exactly is going to happen to the farm then?

**Mr Comley**—That is what I am trying to explain. The model of the way in which agriculture would be included, should that decision be made, has not been finalised, and there has been a lot of discussion with stakeholders who actually have a variety of views on this. One model is that you would have a liability at the farm level.

**Senator JOYCE**—Let us talk about that model. How does that work?

**Mr Comley**—I will talk about that in a second, but the second model would actually be to not have the liability at the farm level but to have that liability somewhere downstream where the agricultural products are taken. That could be at an abattoir, at a meat processor if it were in the beef industry, at a grain silo—

**Senator JOYCE**—It still filters back. How are you going to assess the carbon emissions on the farm?

**Mr Comley**—That, again, is also part of the consultation process. At the moment we have, essentially, agricultural emissions that feed into the national accounts, so we have a range of methodologies for measuring that.

**Senator JOYCE**—Give me one.

**Mr Comley**—An example might be beef production. There would be an emissions estimate based on the number of head of cattle, and that emissions estimate can in fact be broken down by the region in which you are running the cattle or the breed of the cattle. Other information is being collected.

**Senator JOYCE**—How many tonnes of carbon does a cow emit, roughly?

**Mr Comley**—Quite a lot. I do not have an individual number.

**Senator JOYCE**—Give me a rough idea.

**Mr Comley**—I will give you an idea of agricultural emissions. Agricultural emissions are around 16 per cent of our inventory, and the most significant component of that is beef cattle emissions. I am trying to remember whether it is between six per cent and 11 per cent of national emissions that come from beef.

**Senator JOYCE**—If there were one bovine ruminant marauding across the countryside chewing up cellulitic material and turning it into faeces, how many tonnes of carbon would that bovine ruminant emit?

**Mr Comley**—We will take that on notice.

**Senator JOYCE**—Would it be one tonne per beast?

**Mr Comley**—I am not going to give an estimate off the top of my head; we will take it on notice.

**Senator JOYCE**—Does anybody have any idea about the most analysed document of all time?

**CHAIR**—They said they are still doing the analysis. It is not yet included.

**Mr Sterland**—There is nothing in the exposure draft before the stakeholders and this committee that pre-empts that decision.

**Senator JOYCE**—Let us just cut through it. At the end of the day they are going to have to buy a permit for each tonne of carbon that that beast emits.

**Mr Comley**—There are a couple of important points. The first point is the model of inclusion, whether the inclusion is going to occur, and a decision has not been made. The second point is the method of inclusion, and that has not been included. But the third point is that there is a clear policy commitment that, should agriculture come onto the scheme, they will get access to the same emissions-intensive trade-exposed assistance regime as other sectors.

**Senator JOYCE**—Let us move on. What we have confirmed there is that we do not have a clue what is going to happen to agriculture in 2015; otherwise, we would have some details. But let us move on to tax. Is a tax tax-deductible?

**Mr Comley**—I think that is a question you should direct to Treasury.

**Senator JOYCE**—I will help you out. The answer is no; it is not. So, if a person is buying this and it is deemed to be a tax, they will not get a tax deduction for it.

**Mr Comley**—The question of whether it is a tax is one that the government views as not a tax. There are a number of bills for an abundance of caution in case it is viewed as a tax. If that hypothetical situation were to occur then the government would have to look at the policy.

**Senator JOYCE**—So we would have a tax that was tax-deductible, then?

**Mr Comley**—I am not going to comment on that. That is a matter for Treasury.

**Senator JOYCE**—I can tell you that it is not. There would be a complete change in the tax act. We have to do an assessment process. You personally are not going to be walking around the

countryside assessing carbon emissions; I imagine somebody else is. Can you direct me to one accredited assessor?

**Mr Comley**—As I explained last time, the process for determining who would be an accredited assessor has not been completed yet.

**Senator JOYCE**—So there isn't one?

**Mr Comley**—There is not a person who has been accredited under the scheme that will be put in place; there are a range of firms that are currently in the process—

**Senator JOYCE**—Name one of those for me—

**Mr Comley**—and in fact provide advice on emissions.

**Senator JOYCE**—So name one person who is likely to be accredited as an assessor or who has been considered for being accredited as an assessor.

**Mr Comley**—Senator, I do not think it is appropriate for me to provide names of individuals, but—

**Senator JOYCE**—Because it is kind of fundamental to the whole policy working, isn't it?

**Mr Comley**—Yes. An example would be the major accounting firms.

**Senator JOYCE**—The major accounting firms—good stuff. I will go back to accountancy now for sure! How many more public servants are going to be employed to run this scheme?

**Mr Comley**—In terms of the employment for the regulator, the final numbers have not been finalised, but, to give you a rough indication, the intention would be a little under 300.

**Senator JOYCE**—Three hundred are going to run it for the nation?

**Mr Comley**—Sorry?

**Senator JOYCE**—Three hundred people are going to run this CPRS for the nation?

**Mr Comley**—The intended staffing profile of the ACCRA is around 300.

**Senator JOYCE**—I will hold you to that. Now, has there been any correspondence—because we are leading the world on this—between you and the US, in regard to where their emissions trading scheme is going, or you and China, you and Russia or you and India?

**Mr Comley**—In terms of correspondence, we certainly have close contact. In fact, the reason that the secretary is not here today is that he is currently consulting in the US on emissions trading, among other things. We certainly have a range of bilateral contacts with China. We also have contacts with provincial level governments—

**Senator JOYCE**—And how are they doing that? Are we ringing them or are they ringing us?

**Mr Comley**—I think you would say it is a two-way flow. I think that they are very, very interested in developments in Australia.

**Senator JOYCE**—And when do they reckon they are going to kick off on it?

**Mr Comley**—I do not think it is appropriate for me to comment on where US policy on this might be evolving.

**Senator JOYCE**—Are you willing to suggest that the US may go down the path of an ETS? Have they given us even some semblance of information which you could table which suggests they might go down the path of an ETS?

**Mr Comley**—Senator, President Obama has said on the public record a number of times that he would like to introduce a cap and trade scheme in the US, and in fact there have been a number of pieces of legislation before the US congress that give effect to a cap and trade scheme.

**Mr Sterland**—If I could just add to that, the Obama administration has included revenue from a cap and trade scheme in its budget proposal before the US congress.

**Senator JOYCE**—And that it is similar to ours, to our cap and trade?

**Mr Sterland**—Absolutely—very much so.

**Senator JOYCE**—Very much so. Thank you.

**Mr Sterland**—Just on the other point—I think this goes back to Senator Eggleston's question earlier—there is nothing in the Australian scheme that requires exactly the same legislative structure in the developing countries that you mentioned. For them to contribute credits involves an internationally recognised process to assess that abatement; it does not require common introduction of the same scheme throughout the—

**Senator JOYCE**—Okay; I am really interested in the story of revenue, because that is my next question. Can you tell me how much revenue the government is going to collect after implementation of this scheme?

**Mr Comley**—Yes. It was laid out in the white paper.

**Senator JOYCE**—Yes. I want you to put it on the *Hansard*. I actually know what it is; I want you to say it.

**Mr Sterland**—The potential revenue from the issuing of permits—and that is the entire set of permits—is \$12 billion in 2011-12—

**Senator JOYCE**—Twelve billion in 2011.

**Mr Sterland**—but not all of those will be auctioned. A portion of those have been allocated administratively. So \$3.1 billion of that is being allocated to the emissions-intensive and trade-exposed industries and \$0.7 billion to strongly affected industries. So that is around a third in total that has been allocated administratively, and then just over \$8 billion is for auction.

**Senator JOYCE**—So you have got about \$8 billion coming in as revenue. Is there anything in the legislation that says that money has to be paid back out?

**Mr Comley**—No, Senator. That is a commitment the government has made, but it is not captured in the legislation.

**Senator JOYCE**—It is not captured in the legislation, is it? So technically, at the moment, they could just keep it—especially if they have got a huge deficit and they are trying to cover their books.

**Mr Comley**—It is quite unusual for legislation to specify what future outlays may be made, unrelated to the bill itself.

**Senator JOYCE**—Is there anything in the legislation that talks about the time frame in which that money has to go back out?

**Mr Comley**—No.

**Senator JOYCE**—There is not, no. So they could pay it all back out—make a statement—or they could hold it for a number of years if they really wanted to. There is nothing in the legislation to preclude their doing that, is there?

**Mr Comley**—The legislation gives effect to putting the scheme in place; what is done with the revenue as it flows into consolidated revenue as a matter government.

**Senator JOYCE**—It is a matter for the government once it is in consolidated revenue—thank you.

**Mr Sterland**—The government will be putting out legislation that relates to some key elements of that spending. For example, along with this bill, when the parliament sees it, the fuel tax adjustment will be in legislation and there will be adjustments to rates of payment and the like for low- and middle-income earners. So there will be other legislative expressions of the expenditure which will account for a very large proportion of that table.

**Senator JOYCE**—The main thing is they are going to be collecting tens of billions of dollars and there is nothing in the legislation that says they have to pay it out.

**Mr Sterland**—But there will be legislation that does.

**Senator JOYCE**—Will there? Can you tell me what is in it?

**Mr Sterland**—There will be legislation that accounts for very significant amounts of the household assistance package.

**Senator JOYCE**—What is ‘significant’? You know a lot about it. Is it 50, 60, 70 per cent?

**Mr Comley**—What Mr Sterland is alluding to is that the assistance for low- and middle-income households is \$6 billion in 2011-12. That has to be delivered through legislation because it comes—

**Senator JOYCE**—\$6 billion over how many years?

**Mr Comley**—In that year.

**Senator JOYCE**—So how much are they collecting?

**Mr Comley**—On the fiscal balance measure that Mr Sterland was talking about, if you auctioned all permits you would raise \$12 billion in 2011-12. Of that, \$6 billion is assistance for low- and middle-income households, which is delivered through legislative amendments in acts outside the CPRS.

**Senator JOYCE**—But those bills are not on the table.

**Mr Sterland**—They are not out for exposure at present.

**Mr Comley**—But they will be before the parliament when the CPRS is being debated, and the fuel tax adjustment also needs to be made legislatively.

**Senator JOYCE**—How much is that?

**Mr Comley**—That is \$2 billion. The assistance to emissions-intensive trade-exposed industries, another \$3.1 billion, is captured within the legislation. The assistance to strongly affected industries, which is the \$0.7 billion, is also captured in the legislation. Regarding the Climate Change Action Fund, which is \$0.7 billion, some of that as grants programs may not be captured in the legislation.

**Senator JOYCE**—They are not permanent measures, though, are they? They are introductory measures; they are not going to go on forever. Are you saying that those introductory measures, such as the assistance to pensioners and the assistance to trade exposed industries, are in perpetuity or just at the introduction of the scheme?

**Mr Comley**—That is a policy matter for government. Certainly the framework for the emissions-intensive trade-exposed industries has been set out in the white paper.

**Senator JOYCE**—At this point there is no exposure draft, but I can tell you right now that is just at the introductory side of the legislation. It is not considered that it will go on in perpetuity, in which case you have a windfall gain for the government.

**Mr Sterland**—There are some small elements of the fuel adjustment that are transitional. By far the bulk of it will have a forward estimate going forward because of the way the assistance is delivered.

**Senator JOYCE**—So you are giving a guarantee that the bulk of the amount that is received will be, in perpetuity, returned back to the public.

**Mr Sterland**—Subject to parliament.

**Mr Comley**—We are talking about potential policy decisions going forward.

**Senator JOYCE**—The policy one is a handy answer. An overriding guarantee of the scheme is to mitigate carbon levels, and we have come up with a lot of issues so far that you have not foreseen, agriculture being the primary one. If, in another area that you have not foreseen, carbon levels reduce, what will be the value of my permit?

**Mr Comley**—That is a hypothetical question.

**Senator JOYCE**—I am saying ‘if carbon levels reduce’. That should not be hypothetical. It should be straight out, black and white. This is the most analysed piece of legislation in time. Surely you would be able to tell me what the value of the permit will be if carbon levels reduce.

**Mr Comley**—The first thing, in terms of the science, is that carbon levels are not reducing. They are increasing quite substantially.

**Senator JOYCE**—But I am asking you what happens if they do.

**Mr Comley**—The question of what happens when carbon levels reduce is really not directly relevant to what happens to the—

**Senator JOYCE**—Why not? It is the Carbon Pollution Reduction Scheme. What happens if carbon levels reduce?

**Mr Comley**—What happens to the carbon price, which is what you are asking, is a relationship between the cap that is put on carbon pollution and the underlying demand for that carbon pollution.

**Senator JOYCE**—What is going to be the level? I can answer that question. It is so simple: your permit will be worth nothing. Why can't you say that?

**Mr Comley**—Because you are assuming a range of things—

**Senator JOYCE**—No, I am assuming one thing—carbon levels globally reduce. What will be the value of my permit? This is the Carbon Pollution Reduction Scheme. Surely you must be able to give me a value for the permit if the Carbon Pollution Reduction Scheme works and carbon is reduced.

**Mr Comley**—The point I am trying to make is that ultimately the carbon price is the balance between the demand or the desire to put carbon pollution into the atmosphere and the cap that is imposed on it.

**Senator JOYCE**—You are prevaricating.

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**Mr Comley**—Senator, I do not actually think—

**CHAIR**—Senator Joyce, there are other questions and we are running out of time.

**Senator JOYCE**—How are we going at the moment borrowing money for permits? If there are \$12 billion worth of permits out there and let us say you auction \$8 billion worth, how is the industry going to go borrowing money for the permits in the current economic climate?

**Mr Comley**—The first point is that it is not necessarily the case that firms will have to borrow money for those permits.

**Senator JOYCE**—You will give them to them, will you?

**Mr Comley**—No; I think there is a very important point. The scheme runs on a financial year, so it starts on 1 July and ends on 30 June, and the actual permits do not have to be surrendered until 15 December in each compliance year. What many businesses are actually doing is pricing in their business decision making through the course of the year the impact of the expected permit liability.

**Senator JOYCE**—So the farmer could just price in the permit and say at the cattle yards, ‘You’ll had to pay me more money so that I can buy my permit.’

**Mr Comley**—We have already discussed that there is a decision to be made whether agriculture will be included. The question of how you meet your liability—

**Senator JOYCE**—How about the dairy producer and the production capacity at the dairy level? They will just price in to see—

**CHAIR**—Senator Joyce, we are discussing the current exposure draft, which does not include agriculture.

**Senator JOYCE**—No, dairy production is in right away. In fact, Murray Goulburn have a 700,000 tonne carbon footprint, which they have to pay for right away. How are they going to price that in?

**Mr Comley**—The question of whether people can price in or pass is a commercial negotiation. What I am trying to make clear is that the actual permit liability does not come until five months after the compliance year. There are a range of different ways in which firms can manage their permit liability.

**Senator JOYCE**—So if they cannot offload the price, the only thing they can do is borrow the money to purchase the permit.

**Mr Comley**—I think there are two issues here. The first issue is whether they actually bear directly the permit cost or have a capacity to pass it on. The second issue is how they manage the cash flow implications of having permits which they may purchase in advance of the point at which they have to meet their compliance obligations.

**Senator JOYCE**—And in five years time you have to buy all the permits again, don't you?

**Mr Comley**—Sorry?

**Senator JOYCE**—How long do these permits last?

**Mr Comley**—The permits are vintage stamped, date stamped—that is, we issue them as a 2010 permit or a 2011 permit. Each of those permits is good for one tonne of carbon, so once you have used it once it expires, but you do have the capacity, if you choose to, to bank a permit to carry it forward indefinitely until such time as you think it is most beneficial to use.

**Senator JOYCE**—So I could buy my permits now and they will last forever?

**Mr Comley**—You can buy a permit which will last indefinitely, but as soon as you use it it expires effectively.

**Senator JOYCE**—If I buy one million tonnes of permits now, I can keep those for as long as I want?

**Mr Comley**—You can but, coming back to your earlier question, if you have bought the permits you will have to have paid for the permits. If you choose to pay for the permits just to hold them for whatever reasons, you would be tying up capital in the purchase of the permits.

**CHAIR**—Senator Joyce, we really have to wind this up.

**Senator JOYCE**—Obviously, that would mean I would buy and hold them in the market as a capital asset and crowd out other people's capacity to buy permits and force up the price of permits.

**Mr Comley**—Certainly, there is a capacity to bank. Now, as to whether you would choose to do that—you would have to compare the financial return on that permit with other financial returns, bearing in mind that these permits pay no coupon payment, they have no intermediate flow of funds. They are not like a share in a company or a bond in that respect. So you have got to be prepared to pay that capital holding cost.

**Mr Sterland**—And they are interchangeable with international credits in this scheme, so we do not think it is really possible for an individual entity to affect the market like that.

**CHAIR**—Senator Xenophon.

**Senator XENOPHON**—Can I just go to the issue of the regional impacts of the CPRS. You are aware, Mr Comley, of a report last week that was prepared by Frontier Economics for New South Wales Treasury in relation to that. Did your modelling look at regional impacts on employment?

**Mr Sterland**—That is a question for Treasury in detail. I do know that they looked at the robustness of the regional modules under the model that was used and decided that it was not

going to contribute usefully to the public debate to push a model that they did not think was robust. The data underpinning it was not robust.

**Senator XENOPHON**—So you do not think it is robust to look at regional impacts?

**Mr Comley**—No, that is not what Mr Sterland said. He said that these models are designed for particular purposes. There is clearly an interest in looking at regional impacts, but these models are not designed with sufficient robustness of data when you start disaggregating down to that very fine level.

**Senator XENOPHON**—Right. Some could criticise Frontier Economics for their modelling, because they basically used a CGE model—computable general equilibrium, for those who are reading this—which is the same model that is used in CPRS simulations which has a full employment closure rule. Is that your understanding?

**Mr Comley**—I would be very surprised if the CGE model does not have a full employment closure.

**Senator XENOPHON**—But—can you explain this to me—doesn't that model assume that there will be an adjustment effect on the labour market, that it will seamlessly adjust from one sector of the market to another to achieve that full employment closure rule?

**Mr Comley**—If you have a full employment closure of a CGE model then essentially you have assumed that the labour released in one area, if there is a change in the relative growth rates of a sector, will be absorbed elsewhere. That is a common assumption in CGE modelling. Now, some CGE models attempt to put some, if you like, friction into that process, but generally those with full employment closures look at what has happened over history, which is that you tend to have trend changes in unemployment, and, as one sector grows at a relatively slower rate, they are absorbed into other sectors.

**Senator XENOPHON**—But in the real world there are frictions. Wouldn't you look at the labour market factors and also things such as capital stock rigidities? You need to consider those in the context of how there would be an adjustment, at least on a transitional basis, with respect to a CPRS.

**Mr Comley**—And some of those capital rigidities show up as changing profitability levels in the real world, which is not necessarily associated with changes of employment levels but has an impact on capital as well as labour. A good example of this, I think, is the transition of the electricity sector under the CPRS. We have modelling reports which pick up changes in asset values—that is change on the capital side which reflects that you have rigidities in capital—and that is why there is the Electricity Sector Adjustment Scheme.

**Senator XENOPHON**—So you are saying that the Frontier Economics modelling has not included the whole issue of capital values being affected as much as a CPRS model?

**Mr Comley**—No, I am not saying that—

**Senator XENOPHON**—I misunderstood.

**Mr Comley**—I am just making a general observation about CGE modelling.

**Senator XENOPHON**—Okay. But in relation to Frontier Economics, as I understand it, you have said that there will not be as much of an impact on electricity prices and therefore there will not be as much of an inducement for households to alter their behaviour. Is that a fair summary?

**Mr Comley**—Yes.

**Senator XENOPHON**—But isn't the flip side of that that, if there is not such an impact, you can go for a deeper cut, in the sense of going for a more ambitious target?

**Mr Comley**—No, I think—

**Senator XENOPHON**—Because, if the price effect is cushioned, isn't the corollary of that that you have the option or flexibility to go for a deeper cut in emissions?

**Mr Comley**—I think that is the wrong conclusion. The reason I think it is the wrong conclusion is that the cushioning that is needed for the transition is delivered in the white paper model by income assistance for those most vulnerable to the transitional process. If you actually reduce one of the areas where you can find low cost abatement, which is the demand side, you will typically impose a higher aggregate economic cost for making any transition for any emissions reduction. So, by reducing the demand side response, you make achieving a more ambitious target more difficult.

**Senator XENOPHON**—But isn't what the government is proposing—please correct me if I am wrong—compensation of 105 per cent for low- and middle-income earners?

**Mr Comley**—It is actually more than that for some low-income earners.

**Senator XENOPHON**—So where is the incentive to change behaviour?

**Mr Comley**—The incentive is that the money is provided as a lump sum.

**Senator XENOPHON**—They could go to the movies with that. They do not have to spend it on more efficient—

**Mr Comley**—Exactly. If they can go to the movies the flipside is that they can decide not to keep running the same power bill they have and then use that money to go to the movies or something else. So they face that full incentive because you have not tied it to the energy use, whereas in the frontier model the price of electricity does not change and, as a result, there is no incentive to decide: do I want to go to the movies or something else, rather than spending money on power?

**Senator XENOPHON**—Going back to my dim, dark days in state parliament, after the assets were privatised in South Australia electricity prices for consumers went up in the vicinity of 30 to 35 per cent. People did not change their behaviour despite that massive whack in electricity prices. Isn't there an issue here about the relative inelasticity of demand for electricity?

**Mr Comley**—There is a question of inelasticity, but some of those issues are clouded by the fact that there are two elasticities at play here. One is the price elasticity—how much you respond to price. The other is the income elasticity—that is, as you increase someone’s income, what happens to their use of electricity over time. We have had very strong income growth in Australia over a number of years, and that is largely driving electricity demand. On the other side, the costs of a range of appliances that are used with electricity to produce benefits have also tended to decline over time. So you have to look at the combination of factors. But I think it is wrong to conclude that the price does not have an effect once you have allowed for those other factors.

**Senator XENOPHON**—What modelling has been done to show that, if you compensate consumers more than 100 per cent for an increase in electricity prices, there will be an abatement in demand for electricity that will do all the things that consumers ought to do in terms of energy efficient light bulbs and so on? That is the sort of thing the GGAS scheme, which was only a baseline and credit scheme, did in New South Wales. To what extent are we missing the boat on that, in that this is quite a fixed approach that does not tackle the issue of abatement front on?

**Mr Comley**—Everyone recognises that price is not the only mechanism you use. That is why there is a suite of other complementary measures—for example, the insulation measure that was in the stimulus package.

**Senator XENOPHON**—That is not part of the CPRS, though.

**Mr Comley**—No, but the government would think about its policy involving a whole range of tools, not just the CPRS. To reduce the price incentive would take one of the tools that are going to impact on household demand out of the equation, and over time that will continue to be an important driver.

**Senator XENOPHON**—Going back to the issue of the full employment closure rule, the issue of capital rigidities has largely been assumed away in the modelling, hasn’t it? Certain assumptions have been made about capital rigidities, which some would say puts an artificially low cost on what the economic impact of the CPRS will be in its current form.

**Mr Comley**—This is a question that we would be happy to refer to Treasury and get something before the end of the week. I note that, when you do a modelling exercise, there are a range of things on both sides of the equation. Some people may look at capital rigidities as being understated in the CGE model. Others will say that it can only take account of trend changes in technology and, if you are imposing a large price change, you may in fact get more technological response than you have had in the past—or, for example, more of a response on demand side. There is going to be not just the pure price effect but also a lot of publicity and awareness-raising of these matters associated with the introduction of the CPRS.

**Senator XENOPHON**—Going back to the issue of compensation, if you overcompensate, you will not have the price elasticity effect, will you?

**Mr Comley**—You still have the price elasticity effect.

**Senator XENOPHON**—It is muted, though, isn’t it?

**Mr Comley**—It is muted by the extent of the income effect but the overall change in income for these households is relatively small because electricity is a relatively small part of their consumption basket. So if you get a price effect of 18 per cent and you are increasing income levels, even for pensioners, by 2½ per cent then the effect of the price is still going to be very significant.

**Senator XENOPHON**—That is included in all the modelling that has been done?

**Mr Comley**—The specific compensation package was not modelled in the Treasury modelling report but—

**Senator XENOPHON**—That is pretty fundamental, though, isn't it?

**Mr Sterland**—With the fact of compensating it, yes.

**Senator XENOPHON**—Are you saying that the effects of the proposed compensation have not been modelled in terms of what their impact will be on electricity consumption?

**Mr Sterland**—We will take some of that question on notice because I think there are probably some very specific answers. But recycling of the revenue to households was modelled, so that first order macroeconomic effect was in the modelling. That sort of level of macroeconomic model does not give you the tools to go down to every income and household type to do it, but the overall effect is in there, and it is separated from—

**Senator XENOPHON**—But it really is the \$6 billion question because it is a question of behavioural economics as well, isn't it, in terms of how consumers react to the level of compensation in respect of their energy consumption?

**Mr Comley**—There is a sense of how they will behave, but the price effect is very significant. They receive an income payment which effectively is untied to their expenditure and it becomes part of the tax transfer system in general. So essentially, for a pensioner, you raise their income by 2½ per cent. They face increased electricity prices of around 18 per cent, so it is a very strong price driver. They are given enough income that they could continue exactly the same behaviour and be no worse off, but they have a strong incentive to change their behaviour.

**Senator XENOPHON**—But has modelling actually been done in terms of what the likely impact is going to be of that compensation on people's behaviour? I do not think it has. Is that a fair conclusion?

**Mr Comley**—I am not aware of specific modelling of the precise compensation package but, as Mr Sterland said, there is modelling of recycling the revenue to households.

**Senator XENOPHON**—Rather than spending that level of compensation on energy efficiency measures—having the SWOT teams going in to put in energy efficient light bulbs and low-flow shower heads and all that sort of thing—has any modelling been done as to what bang for our buck we get in terms of reducing greenhouse gases?

**Mr Comley**—I am not aware of such modelling but I am not sure that the modelling would give you a lot of insight to those sorts of programs which have only been run on a small scale to date.

**CHAIR**—Can I ask a related question. Has the department provided the government with any advice about schemes, within either the CPRS or additional schemes, that would assist with voluntary household action? Has there been any more discussion about that?

**Mr Comley**—Obviously I will not comment on the content of the advice—

**CHAIR**—No.

**Mr Comley**—but we have provided advice to government on those issues.

**Senator XENOPHON**—Can I follow on with that, because to me this is about reducing greenhouse in the most efficient way. Do these other tools for managing demand include credit schemes? Is it part of the credit schemes to give incentives to reduce demand?

**Mr Comley**—You just asked about credit schemes, but, if you are talking about things that have often been referred to as ‘white certificate schemes’, the general view is that the Carbon Pollution Reduction Scheme sends the price signal itself. It is the clean and consistent approach to sending that price signal and so it is not clear to us that there would be additional benefits of having a second scheme that replicates a similar task.

**Senator XENOPHON**—I think I need to put some questions on notice, and maybe this is a basic question I should understand, but how can you argue that as incomes are rising through the compensation mechanism people are being more sensitive to rising electricity prices? I do not quite get that.

**Mr Comley**—The point I was making is that, other things being equal, higher incomes tend to reduce your sensitivity to any particular price.

**Senator XENOPHON**—As would a compensation mechanism.

**Mr Comley**—Yes, but the price change is quite large relative to the income change. The comment I was really making is that one of the things that really drive the responsiveness to change is the timescale that you have in mind. Every result across all types of markets shows that short-run elasticities are smaller than long-run elasticities. That just makes sense. You have more options to change your behaviour the longer the time horizon, so you have more time to turn over your car and to do a range of capital projects. The most important thing in terms of elasticity is not the current price or even a change in the price at that point but your expectations about what is likely to happen to future prices. If you have an environment where there is an expectation that carbon pollution is going to become more expensive and that prices will rise over time, you would consider a range of investment decisions that you would not if you were in a world where you did not expect those to change.

**Mr Sterland**—The other point to make is that the real income of the household sector is not going up, and no-one is claiming it is. These are measures to compensate for a one-off price

impact which are aimed at the most vulnerable households. Some of them, because of the nature of those payments, may get slightly more than the price impact. But, as a whole, the household sector is not getting a real income boost that is going to be muting a considerable incentive to respond to emissions.

**Senator XENOPHON**—My understanding is that dairy emits about 2.2 tonnes a year; grain fed cattle, 1.5; sheep, around 0.2; and pigs, around 1.2.

**Mr Comley**—Those numbers look too low. It may be that that is referring to the meat-processing sector. If you actually look at the beef production sector, including the things not included in the scheme, it is much, much higher than that.

**Senator XENOPHON**—Perhaps you could take that on notice.

**Mr Comley**—Yes.

**Senator BUSHBY**—In response to an earlier question about alternatives to a CPRS you suggested there were really only a market approach and a regulatory approach. What about other approaches to reducing or even sequestering carbon? The high-profile example of biochar, for instance, did not seem to fit into either of the approaches that you said were the only options.

**Mr Comley**—There are two questions. One is whether these things would be recognised in international accounting rules, but let us just put that aside for the moment.

**Senator BUSHBY**—I think that is irrelevant. The overall aim is actually to reduce carbon. Whether it ticks some boxes somewhere or not, if it is reducing carbon it is reducing carbon.

**Mr Comley**—It is true that the goal is to reduce the carbon pollution entering the atmosphere. The fact that these are not currently recognised in international accounting is partly because there are some methodological issues that need to be considered. When I answered previously about the suite of measures, even with something like by biochar one would imagine that you would need either a market or a regulatory regime to encourage, monitor and verify whether that was actually occurring. So I was not meaning necessarily to exclude that, but I was capturing the idea that you would in fact need some regulatory structure or incentive system for it to occur.

**Senator BUSHBY**—Okay. That is fine. That leads into my next question. That answer highlights the very fact that the CPRS that we are looking at is only one example of how you could set up a market system, only one example of how you could set up a cap and trade system. There are lots, probably thousands, of areas within the CPRS as proposed that could have been set differently, with different results for how they impacted on Australians, Australian businesses and Australian industry, while still reasonably likely to achieve the aims of reducing carbon emissions. Is that a fairly accurate statement?

**Mr Comley**—It is certainly the case that, once you decide you are doing a cap and trade scheme, there are a very large number of design decisions that have to be made to decide which particular cap and trade scheme you have. At one level, what the white paper does is walk through all the design decisions you need to make to give effect to a particular cap and trade scheme. I think it is actually a very useful point, Senator, because in commentary people will

often say that they would like an alternative model, but until you fully specify what that model is you really cannot trace through what the implications are for the economy as a whole but also particular sectors of the economy and the environment.

**Senator BUSHBY**—I think that is a fair statement. The CPRS that we as a committee are looking at includes therefore a lot of policy decisions that have been made as to how this particular cap and trade scheme is proposed to work in Australia.

**Mr Comley**—Yes, that is right.

**Senator BUSHBY**—And there are a lot of different decisions that could have been made, which would have had different consequences—and, as you say, possibly you would need to work through the whole of the scheme before you could accurately analyse what those consequences or impacts might be. Nonetheless, you could do a different CPRS or a cap and trade scheme in Australia while still trying to achieve similar aims or targets.

**Mr Comley**—You could, but with any design choice that you make, though, you would have to carefully analyse what the ramifications would be.

**Senator BUSHBY**—I acknowledge that. There would be different impacts and, as you say, you would not necessarily know what those impacts would be until you had fully designed the scheme and tested how it might work and how it might play out.

**Mr Sterland**—I think there is some truth to that, but the other point I would make is that there has been very substantial analysis of very many of those design decisions over a range of years in successive reports. First, the white paper goes to some lengths to try and really talk about the pros and cons in each case. That followed a green paper process which received extensive submissions. So we are well aware of the different design choices, but these ones have been reached in a very deliberative fashion and in response to stakeholder concerns. I think, where those stakeholder issues have been raised, they have generally been raised very transparently and openly in the white paper. This whole process builds on a process the states ran and then the Shergold review ran, where many of these decisions were gone over. So, it is true that there are many design choices to make, but we have arrived at this point after writing and thinking and discussing all of those design choices with stakeholders.

**Senator BUSHBY**—I understand and appreciate that. But, if decisions have been made—

**Mr Sterland**—Based on analysis too.

**Senator BUSHBY**—based on analysis and based on representations made by stakeholders, ultimately the design would include trade-offs to some extent, because if it was easy everybody would do it and it would not be such a problematic or drawn-out process. Decisions have been made to design it in the way it has been designed on the basis of all those factors that you have stated, but other decisions could have been made in the process if the government had so decided.

**Mr Comley**—That is right, but—just following on from Mr Sterland's point—both the white paper and the green paper are very transparent about the various decisions that were made and

the alternatives that could have been considered. For every key design aspect, the pros and cons of the particular decision are actually laid out in the green and white papers.

**Senator BUSHBY**—I understand that as well. So, as a result of all of that, the department is confident that the CPRS as designed is the best outcome for seeking to achieve the emissions reduction targets?

**Mr Comley**—I would characterise it this way: there are a number of design elements that are critical as to whether you can achieve emission reduction targets. Certainly, we are very confident that the design of the scheme meets them. We are also confident that technically those emission reductions can be achieved and that it is administratively feasible and meets all those sorts of standard tests of ensuring the thing will work. There is a range of other design details which essentially make judgments about how different stakeholder groups, different parts of the community, will share in the task of achieving emission reductions. I do not think it is appropriate for the department to comment on whether we think that balance is exactly right or not because that is ultimately a judgment that is not a technical judgment but a policy judgment. But what I can say is that the choices that are made in respect of those judgments in the white paper do not compromise the capacity to meet the emissions reduction objective.

**Mr Sterland**—The only extra point I would make is that, when we go into the world with professional colleagues in other key countries that are working on this, they find this a very strong document with considerable support. So in that overall sense, if you are looking outside of our environment, the professional feedback from practitioners and other governments looking at this is that they find this a very robust and credible contribution to what has been a very significant debate worldwide.

**Senator BUSHBY**—That leads into my next question. Earlier we had a discussion in response to Senator Furner's question regarding what other countries are doing, both a sample of developed and sample of developing nations. Are any of those looking to adopt an emissions trading scheme that would be identical to ours, given what you have said about it being so well received worldwide and having done the work to make sure that the decisions you have made within the design are the right ones? Will other nations be adopting it holus-bolus?

**Mr Comley**—I would answer that this way: with the possible exception of New Zealand—because New Zealand policymakers have a real concern about consistency across the Tasman; I am not speaking for them but I think they are an exception—I would find it surprising if any country necessarily came to exactly the same judgments on all design features of a particular scheme. The reason for that is that every country brings its own institutional, political, economic context to a question, and that manifests itself in the way you see all other policies play out. For example, the way that you see a structural reform task handled in France will not be the same way it is handled in the UK, the US, Australia, Malaysia or Indonesia.

When you are getting down to those judgments about the way in which the community adjusts to a structural reform, the way in which a transition is managed, I think it would actually be quite surprising if someone made exactly the same judgments, given their domestic consequences. There are areas in which I would expect them to not necessarily adopt a holus-bolus approach but, in areas of how you technically measure principles and terms of establishing broad coverage, and in looking for experience of how you bring sectors in that have been quite difficult

elsewhere internationally, I think you could imagine the technicians would say, 'I think that is a sensible model to pick up'.

The other thing that I would say is that part of the dialogue that we have with our international colleagues is to talk through the reasons that we have done things and to explain them in some detail. I think what you will probably find is that will feed in through that indirect process into the way they think about design choices which may show up in future models, in the same way that we have clearly learnt from the European experience but we do not have a scheme that looks exactly like the European models.

**Senator BUSHBY**—That answer does not surprise me at all. As you say, there are a whole range of factors that are very different between countries that impact on how they would design—

**Mr Sterland**—Could I add that, in a sense, Mr Comley jumped over the New Zealand example, but the New Zealand government has made it very clear—and I do not think it is just for reasons of competitiveness—that they are very interested in looking at the model in quite a lot of detail. Part of that is that we do have some similarities in the structure of our economies. So there is at least one country that is looking very closely to features of the scheme, and it has announced part of that government's policy.

**Senator BUSHBY**—They may well adopt features. Despite their economy having a lot of similar features, they may well, for political reasons, decide differently on certain aspects of the design.

**Mr Sterland**—As Mr Comley mentioned, that is true.

**Senator BUSHBY**—That highlights a point about which I am interested in hearing from you. You mentioned that there are a range of factors—social, political and economic—that may lead to different design options being elected. One of those is political, as you mentioned. For all sorts of political reasons a government may choose to do things slightly differently, or even quite differently, based on the politics of the situation rather than on other aspects necessarily but still with the aim of achieving a similar target to what they could have within the framework—

**Mr Comley**—That is right. Maybe a good example of that is in the European Union. When they introduced the emissions trading scheme, very little consideration was given to the need for household compensation, whereas clearly that has been part of the debate in Australia.

**Senator BUSHBY**—That is right. Coming back to my initial question about the range of factors that could be included, I would imagine that a number of decisions on which way to go may ultimately have been made on the basis of some political input into the decision-making process as well as other input. That must be one of the considerations that come into the mix, particularly with regard to issues that are not technical decisions but more policy decisions.

**Mr Comley**—We are not disagreeing. Any major policy is a combination of technical advice and political considerations.

**Senator BUSHBY**—I have just a couple of other questions. In the last week or so we have had evidence that some of the companies and major emitters and/or industries have been ‘rent-seeking’—that is the term that has been used but not originally coined by me—in terms of what they are trying to achieve from their submissions to the various inquiries into government. To what extent do you think emitters are rent-seeking, or do you accept that most are making submissions that genuinely relate to the impact on their industries and what they think is likely to happen?

**Mr Comley**—I am not going to characterise the stakeholders we deal with as rent-seekers. I would make the observation that they, particularly business stakeholders we deal with, have an obligation to protect the interests of their owners and their shareholders et cetera and put the best case they can for their industry. I would characterise the relationship we have had with the vast majority of stakeholders at a departmental level—and I cannot speak for the minister—as very, very constructive. We have a lot of good input and engagement on the way through.

**Senator BUSHBY**—Do the concerns they have raised appear, on the basis of what you have before you, to be genuine?

**Mr Comley**—Across the board, many of them are raising issues that they certainly believe are genuine, and they provide data and supporting evidence on the way through. Again, all these things at times come back to the judgment about how the task of managing a major structural transformation is achieved, so there are always going to be some differences of opinion about that process.

**Mr Sterland**—The other point would be that the government takes that feedback into account along with a range of other information and analysis—the Treasury modelling and other commission analysis along the way—so there is no sense in which the information is dependent only on stakeholder feedback. There are a broad range of sources and you assess veracity against that on a case-by-case basis.

**Senator BUSHBY**—The suggestion that some of these industries were rent-seeking concerned me. It was probably quite an unfair suggestion. I am interested whether you, having looked at the veracity of those claims, consider there is something in them or whether you think the concerns being presented by the industry are genuine.

**Mr Comley**—In every policy process I have been involved in, you do not necessarily agree with every point that is put to you by a particular stakeholder on any side of the debate. What we do as a department is to make sure that we have understood the argument that has been put to us. Then we will independently seek to analyse and test that both with other stakeholders and other sources to verify those claims or not. The vast majority of the observations that have been made to us have led us to a process of analysis to work out whether we think it is a robust position.

**Senator BUSHBY**—On a slightly different topic, we have heard evidence from a number of witnesses in response to questioning by the committee about the impact on some high-profile areas, such as the aluminium industry and the cement industry, particularly in the context of carbon leakage and the possibility of industries like that leaving Australia or becoming less viable and smaller. The evidence we have received stated that it may well be a good thing for the world if those industries leave Australia and go somewhere else where they can operate using

lower emission energy like hydro or gas, rather than staying here, where they may operate on coal based energy. In the context of that evidence, are there any policy outcomes built into the design of this CPRS that are deliberately abandoning certain industries in the interest of achieving global emission reductions?

**Mr Comley**—No. The clear policy framework is to manage a transition to a low-carbon future. The intention is that, as the rest of the world moves, there will be a global carbon constraint, which means those carbon leakage issues do not occur. In the interim, the intention is that the transitional assistance through the emissions-intensive trade-exposed program will help manage that transition.

**Senator BUSHBY**—That is a nice summation of the government policy, but the reality is that there will be, as part of the transition, some industries that are affected far more than others, despite the approach of the EITE compensation, and we have heard evidence of that. In that context, a number of academic experts have told us that it would be a good thing if some of those industries did leave. So in answer to my question are you saying that no deliberate policy decision has been made that moving some of those industries in the structural adjustment is one of the accepted outcomes of this CPRS to basically try and achieve the target outcomes?

**Mr Comley**—There is no deliberate policy, but the scheme has been set up to try and ensure that incentives are maintained to reduce carbon pollution. So the way in which the EITE assistance is provided, which is the relevant thing for these industries, is such that if they improve their emissions efficiency they benefit from the full value of that by having a lower permit liability. There is a carbon productivity contribution, so there are continued incentives to reduce emissions. But moving certain industries offshore is not a deliberate policy objective.

**Senator BUSHBY**—I will leave it at that, Chair—and I am going to have to leave now as well.

**CHAIR**—Okay. Thanks. I have a couple of questions. One is about the timing of the bills. From one side we have had people worried that it is coming in too soon, that the industry is not ready, and from the other side we have had groups saying that the targets are not high enough, and we should scrap it and wait till it is 25 per cent. Can you comment on that and how all that would fit into the world economic situation, and also on the negotiations that are coming up at Copenhagen.

**Mr Comley**—Maybe if we start with the last point, about the negotiations at Copenhagen. The intention is not to set the scheme caps and the gateways for the longer term until early 2010 so that the outcomes of the Copenhagen meeting would be allowed to be taken into account when setting out those scheme caps and gateways for the next 10 to 15 years. I think that is the important point.

In terms of the timing of the legislation itself, the government's intention is to introduce it in the winter sittings and pass it in the winter sittings, and that would allow the Australian Climate Change Regulatory Authority to come into formal existence—after the legislation is passed and it becomes an act. That would then allow the Climate Change Regulatory Authority to start that information and education and engagement with stakeholders in a very direct, informal way for up to a year, leading up to the introduction of the scheme on 1 July 2010.

There is actually very important point to make about 1 July 2010 which I think has been glossed over a little bit. I think that is partly due to people seeing a parallel with, say, introducing a GST; people are putting the two together. It is true that the scheme starts on 1 July 2010, but the first compliance point is not until October 2011. So this is a little bit different to when you have a reform such as the GST which started on a certain day and then you had people putting in their first BAS return about a month and 21 days after its start. So when people talk about the start of the scheme—while there will be auctioning of permits through the start of 2010 and the formal compliance year will start 1 July 2010, it is not until you get to October 2011 that people will put in their first form. Now, good policy has to have everything in place in advance of the scheme commencing, but in reality that does give a number of people some extra time that has not been considered.

The other issue that is probably worth mentioning is the certainty aspect. I think Senator Joyce was alluding to certainty post-2015, but there are a range of other stakeholders who are particularly concerned about business certainty on a much shorter time horizon than that—three years. There is considerable concern that a delay would have implications for their capacity to make business decisions.

**Senator XENOPHON**—Chair, can I just ask a supplementary question to your question. In the evidence last week given by Dr Richard Denniss from the Australia Institute—you may have heard or read his evidence—he essentially said that, if at Copenhagen there is a higher target set, above the target that the CPRS is seeking, then a liability would be placed on Australian taxpayers, because of the difference between, say, a 15 per cent and a 25 per cent target. Would you care to comment on what Dr Denniss said?

**Mr Comley**—I think that is a policy question and assumes that that could not be met without the taxpayer purchasing international permits, and I think—

**Senator XENOPHON**—That is right. But that is a fair enough point, though, isn't it? If at Copenhagen they decide on a higher figure than is proposed in the CPRS then there would be—

**Mr Comley**—That is a hypothetical question, Senator. I do not think I would—

**Senator XENOPHON**—We will leave aside what might happen at Copenhagen. If there is an international agreement to set a target above 15 per cent, won't that mean that Australia will have to purchase permits internationally, which will obviously cost taxpayers?

**Mr Comley**—Not necessarily. For example, I can imagine a scenario where that was not required. If you set a scheme target consistent with the national goal of minus 15 per cent but there was a more ambitious international agreement and that led you to set more ambitious targets post-2020—this is an important point—what that is likely to do is change the actual emissions prior to that point, which is going to change the level of banking. So, whether the Australian government would be faced with a potential liability depends on a number of factors, including the level of banking and the measures that you take in the uncovered sector of the CPRS, or other policies that it could consider before it had to have recourse to international permits.

**Senator XENOPHON**—But it potentially could if we did not deal with those other matters outside of the CPRS to get our emissions down.

**Mr Comley**—One mechanism that the government has available to it is purchasing international permits, but that is not the only mechanism. I think that really is hypothetical at 2020.

**Mr Sterland**—The other point is that the Australian government is sitting at the table where these discussions are taking place and it will be taking its view on the target into those negotiations. So Australia is prosecuting its interest and its objectives in those international negotiations.

**CHAIR**—Let us go into more detail. We have had a number of people complain that they will not really understand the scheme until the regulations are developed. We have the exposure draft here. Can you tell us when the regulations are expected?

**Mr Sterland**—One of the points to make is that people were saying the same thing about the exposure draft to the legislation relative to the white paper, and what we find is that the exposure draft implements the policy that is outlined in the white paper. That would be same general point. The policy in the white paper is very clear, for example, about the way in which emissions-intensive trade-exposed industries are going to be treated. The regulations will implement that, so there is a very extensive process underway to translate that policy through to the regulations. But it is about translating the policy into the regulations, not changing it or bringing in new considerations. There are a substantial amount of regulations, to be sure, and they are outlined quite transparently in both the exposure draft and the white paper itself, which makes very clear the areas where regulations will be important: scheme caps, EITS and a whole range of determinations.

**CHAIR**—Do you expect that those regulations will be available at the same time as the bill or round about then?

**Mr Sterland**—Not all of them. That has never been committed to.

**CHAIR**—I understand that, but I can also understand why people want to look at some of the detail.

**Mr Sterland**—I think what people need to know is that the process for making those regulations will be transparent and incorporate consultation. That is certainly true in the way the EITS regulations are being developed. The government has instituted an expert panel to assist it to make those judgments. The regulations by and large are disallowable, so there will ultimately be parliamentary scrutiny. Even prior to that, we are expecting to consult on the detail of regulations before they are made in a similar exposure draft form.

**CHAIR**—Will those consultations be before or after you expect the bill to be passed?

**Mr Sterland**—Some of them are happening now. There is consultation, as I said, on the detail of the emissions-intensive trade-exposed. There will be consultation on some elements of the auction legislative instrument early and that consultation will be ongoing through the year. There

will be a number of tranches of regulation later in the year, but by and large they are fulfilling and translating the policy that has been clearly enunciated in the white paper. The normal technical interchange that happens in any legislative program will happen. There will be consultation. There will be exposure drafts, by and large, of things of interest. We will take submissions or feedback, and that will be incorporated in the regulations that are made. Ultimately, there is obviously potential for scrutiny in the parliament. So there are a significant amount of regulations to be made, but they are not surprising in their area, they have been well canvassed to date and there will be ongoing consultation on all elements of them.

**Senator FURNER**—Returning to the subject of permits, some witnesses said that importing permits meant that there was a lessening of the task of reducing emissions in Australia and that it would not transform our economy. One witness said that importing permits means exporting jobs. Is that a correct assertion? Also, what are the advantages of importing permits?

**Mr Comley**—I think this covers some of the ground that we discussed with Senator Eggleston. Because the way the scheme has been designed but also the way international architecture is put in place, the question is how many emissions Australia is responsible for, which includes the purchased abatement offshore compared with domestic abatement. So it is true that allowing imported permits will reduce the amount of abatement that Australia will be required to make compared with a situation where you did not import permits. Again we come back to an earlier answer regarding what is happening to emissions in Australia—that is, there is an upward trend without the CPRS of around one per cent per year. So it is still the case, under the CPRS with imported permits, that you turn Australia's emissions profile around for the first time. The comment that you are exporting jobs by having imported permits, if anything, gets the argument the wrong way round. Having no imported permits would push up the carbon price, so it would push up the cost impost on Australian businesses. By pushing up the cost impost on Australian businesses, it would require a more rapid transition to a low carbon pollution economy. What the government has tried to do in the white paper is balance the speed of that transition to allow for the need for adjustments to occur over time. I think that really is the key point. There are still going to be reduced emissions in Australia and the allowance to have imported permits smooths that transition compared with a situation where you would have a higher carbon price.

**Senator FURNER**—Thanks for that. What sort of impost would the likes of LNG face from a CPRS, and what is the outlook for Australian LNG producers as more customer countries, such as Japan, take on emissions constraint?

**Mr Sterland**—Other things being equal, the impact of abatement actions in other countries is at least as significant for Australia as that of the actions we take at home. So many of the modelling results that we see actually derive, under the Treasury modelling, from the assumptions you are making about what other countries are doing. For LNG you would expect in initial instances that a major importer, such as Japan, at certain carbon prices would start shifting its fuel to lower emissions sources. How that plays out over the long run for any particular fossil fuel depends on where those prices go. So there are some ranges, particularly the earlier ones, of carbon price that benefit LNG. Over the longer run it depends on a range of factors, including how LNG compares with other low-emissions sources and what happens to your coal-generating technology, for example. So you would expect that, at the prices that we are looking at, there would be some benefits in the short run. But I would like to take on notice the specific

interpretation of the modelling, just to give you a sense that this is dependent on very specific circumstances.

**Senator FURNER**—Sure.

**Mr Sterland**—As to the impact, we are currently engaged with the LNG industry on estimating EITE assistance and looking at the data that will need to be provided to provide that assistance. I do not want to pre-empt that process, because that process is one that has to be done carefully across the board. The white paper indicated likelihoods in those situations that some industries would receive assistance, but I do not want to pre-empt the outcome of that process. That assistance, of course, will reduce the impact of a carbon price for any given carbon price because it is giving a portion of free permits. It reduces it and there will be a lot of other impacts impacting on industries from the global financial crisis and other impacts such as exchange rate changes. But the assistance in the white paper package reduces the carbon price impact to manageable levels for almost all industries.

**Senator PRATT**—I have some further questions that I will place on notice.

**CHAIR**—Thanks, Senator Pratt. Thank you very much to the Department of Climate Change for the long session. It has been very useful and we appreciate it.

**Committee adjourned at 12.30 pm**