



COMMONWEALTH OF AUSTRALIA

Proof Committee Hansard

JOINT STANDING COMMITTEE ON TREATIES

Reference: Kyoto Protocol

THURSDAY, 19 APRIL 2001

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JOINT COMMITTEE ON TREATIES

Thursday, 19 April 2001

Members: Mr Andrew Thomson (*Chair*), Senator Cooney (*Deputy Chair*), Senators Bartlett, Coonan, Ludwig, Mason, Schacht and Tchen and Mr Adams, Mr Baird, Mr Bartlett, Mr Byrne, Mrs Elson, Mr Hardgrave, Mrs De-Anne Kelly and Mr Wilkie

Senators and members in attendance: Senator Ludwig and Mr Baird, Mr Hardgrave and Mr Wilkie

Terms of reference for the inquiry:

- The implications for Australia of proceeding or not proceeding to ratify the Kyoto Protocol and meeting its target emissions levels by 2008 with regard to anticipated and/or predicted economic, environmental and social outcomes both nationally and in specific regional areas.
- The veracity of conflicting current scientific theories on global warming and any solutions proposed for it.
- What definitions and criteria Australia should develop and actively pursue in its national interest with regard

to:

- grandfathering,
- trading credits,
- carbon credits,
- sequestration,
- revegetation,
- land management, and
- definitions (eg "forest").
- The economic, environmental and social implications of a punitive approach to any domestic regulation of industry including such proposals as a carbon tax and an incentive-based approach.

WITNESSES

COX, Dr Walter Jacob, Executive Director, Department of Conservation and Land Management, Western Australia	293
FIELD, Dr Ross Anthony, Executive Director, Policy, Ministry of the Premier and Cabinet, Western Australia	293
JENKINS, Dr Bryan Robert, Chief Executive Officer, Department of Environmental Protection, Western Australia	293
JUDGE, Mrs Patrice, Director of Federal Affairs, Ministry of the Premier and Cabinet, Western Australia.....	293
MURPHY, Dr Peter John, Executive Director, Resources Development Strategies, Department of Resources Development, Western Australia	293
SASHEGYI, Mr William Stephen, Manager, Industry and Resources, Chamber of Commerce and Industry of Western Australia.....	314
TAYLOR, Mr Martin, Environment Coordinator, Chamber of Commerce and Industry of Western Australia	314

Committee met at 2.00 p.m.

ACTING CHAIR (Mr Hardgrave)—Welcome to this hearing into the implications of ratification of the Kyoto Protocol. Today we will be hearing from the Western Australian government and the Chamber of Commerce and Industry of Western Australia. I welcome representatives of the Western Australian government to the table.

COX, Dr Walter Jacob, Executive Director, Department of Conservation and Land Management, Western Australia

FIELD, Dr Ross Anthony, Executive Director, Policy, Ministry of the Premier and Cabinet, Western Australia

JENKINS, Dr Bryan Robert, Chief Executive Officer, Department of Environmental Protection, Western Australia

JUDGE, Mrs Patrice, Director of Federal Affairs, Ministry of the Premier and Cabinet, Western Australia

MURPHY, Dr Peter John, Executive Director, Resources Development Strategies, Department of Resources Development, Western Australia

ACTING CHAIR—Although the committee does not require you to give evidence under oath, I should advise you that the hearings are legal proceedings of the parliament and warrant the same respect as proceedings of the House and, indeed, of the Senate. The giving of false or misleading evidence is a serious matter and may, in fact, be regarded as contempt of parliament. Do you wish to make any introductory remarks before we proceed to some questions?

Dr Field—I would like to place on record some opening remarks. Firstly, I thank you for the opportunity for the Western Australian government to address the inquiry. The government is represented by four agencies, the Ministry of the Premier and Cabinet, the Department of Resources Development, the Department of Environmental Protection and the Department of Conservation and Land Management. The views expressed today, however, represent those of the government as a whole. I would like to make the point that Dr Jenkins, Dr Cox and Mrs Judge have all attended, as members of the Australian delegation, meetings of the conference of the parties and subsidiary bodies.

Before handing over to my colleagues, I would like to make some general comments and will also, if time permits, make some concluding comments towards the end of our submission. It should be noted that the new government in Western Australia has not yet formed its position with respect to greenhouse gas abatement strategies. Hence our comments will be confined to the facts as they relate to the likely implications of the Kyoto Protocol in Western Australia.

There is no doubt that the task of meeting Australia's target of 108 per cent of its 1990 greenhouse emissions constitutes a national challenge that requires a national approach. This approach requires a close cooperation between governments to enable action across sectors to develop cost-effective reduction measures. To this end, the Commonwealth government

launched the national greenhouse strategy in 1998, and it contains a large number of measures that aim to assist the abatement task in cooperation with the states.

The previous Western Australian government endorsed the national greenhouse strategy subject to a number of conditions. One of these was differentiation of targets among Australian states that reflect differences in state economies and trade patterns. For example, in our view, it would be unfair for Western Australia to have to meet the same targets as other states whose economies could almost continue in a business as usual mode and still meet the Kyoto targets.

Looking at this from another angle, the North West Shelf project contributes to the national economy and should be regarded as a national project. Western Australia alone cannot be expected to bear the cost of emission reduction targets associated with this project. The other conditions placed on the endorsement of the National Greenhouse Strategy by the previous state government were that there would be no significant changes to the National Greenhouse Strategy, that the cost of achieving greenhouse targets would be recognised and that the international competitiveness of Western Australia's economy would not be compromised. There would be concerns if the Commonwealth backed away from the statement that implementation will be in the least-cost way to the national economy, especially if there was no overall examination of the impact across the national economy and across governments. Western Australia believes that regional differences need to be recognised. For instance, much of the power generation in industrial and resource processing in this state is to a very high standard of efficiency, and the cost of further abatement would be very high. It is important that these industries gain recognition for the high standard of their current practice while options exist in other parts of the economy for relatively lower cost abatement.

There are actions that Western Australia considers need to be taken. There needs to be further consideration of the many flexible policies open to Australia to try to reduce emissions in a least-cost way to the country as a whole. In addition, there needs to be considerable importance placed on the mechanisms and protocol to maximise the opportunities for low cost abatement and to minimise the impacts on international competitiveness. These include taking an active role in negotiations in pursuing flexibility mechanisms such as joint implementation, the clean development mechanism and international emissions trading, to ensure that our ability to contribute to a reduction in greenhouse emissions through the delivery of clean best practice technology, LNG, and value added products is not lost and that certainty is provided in relation to the design of domestic greenhouse permits, the trading scheme and its links with international trading. In addition, the Commonwealth needs to proceed with a national interest analysis for the protocol and to invest in advanced modelling exercises that will demonstrate the impact on Australia as a whole, as well as region by region. National interest analysis and modelling are important because they may highlight the conflicting objectives on meeting the Kyoto Protocol target or in maintaining our international competitiveness. I introduce Dr Murphy to make a further presentation.

Dr Murphy—My presentation is in the form of overheads. I will focus on the resources sector and the implications of greenhouse for that sector, and then lead into the Kyoto Protocol considerations. As part of the work that has been done in Western Australia, we have done some scenarios for the resources sector looking forward to 2010. The red bars show the carbon dioxide equivalent emissions by the sector from 1990, 2000 and 2010. The blue bars show those same industries but taking what are generally considered to be 'no regrets measures' in terms of

carbon dioxide emissions. That shows that, if we continue in a business as usual scenario in Western Australia, we could expect by 2010 to be producing some \$53 million tonnes of carbon dioxide purely from the resources sector. With no regrets measures, that drops it by 14.5 million tonnes but still leaves an increase, compared with 1990, of 24 million tonnes. If we compare that with Australia's allowed increase of eight per cent over the 1990 figures, which works out to be about 30 million tonnes equivalent of CO₂, the Western Australian resources sector could take 24½ million tonnes of that amount. So you can see that, if some serious measures were taken, this industry would be hurt quite considerably because, clearly, it could not be expected to take 80 per cent of the allowable amount.

One of the problems though for the state of Western Australia is that basically it has an emerging natural gas economy. This shows the energy supply from 1975 through to 2010. You will see that by the year 2000 natural gas is certainly a major contributor in the economy, being over 50 per cent of our primary energy supply; coal, which is the usual villain that people look at first in terms of reducing greenhouse gas, is quite a small contributor; and petroleum is quite large at this stage but is set to decrease quite considerably as natural gas takes over in the economy.

As this chart shows, the CO₂ emissions within the state at the moment are about equally split between natural gas, crude and condensate, and coal. But what we see going through to 2010 is pretty much crude and coal staying at about the same and natural gas, because of its increased use, taking over as very much the major source of CO₂. One of the implications of that clearly is that, if you are using natural gas, you have gone about as far as you can in reducing CO₂ in terms of conventional technologies.

If we look at electricity generation in Western Australia, back in the 1980s we certainly were heavily into coal. But since about 1990 coal has really stayed static, and what you can see is that gas has increased markedly. By 2010 we expect gas to be quite the majority of the fuel used in power generation, with coal basically staying static. I do not think you would find the same pattern in most of the other states of Australia.

Why is this sector so important to Western Australia? Unfortunately with these figures it is a bit hard to see, but from just reading them down you can see that the sector accounts for about 26 per cent of the gross state product and about 70 per cent of the state's exports; it produces about 20 per cent of direct and indirect employment in the state; and, on figures put out by the University of Western Australia, one in two new jobs created in Western Australia since 1990 has been in the resources sector. It accounts for about 50 per cent of the state's new investment. On the Australian scene, it accounts for about 54 per cent of mineral production, about 50 per cent of oil and gas production and over 50 per cent of new mining investment. So it is a pretty good case for saying that, if resources get a hiccup here, the rest of the economy certainly feels it.

Just very quickly looking at what makes up the resources sector here by value: oil and gas in the year 2000 was about \$10 billion, so it was our largest component; iron ore was about \$4 billion; alumina was \$3 billion; nickel was \$2 billion; and gold was about \$3 billion. One of the reasons for putting this up is to look at the comparison with 1960. These are in comparable figures. So that says that, with the value of gold in 2000, we produced \$240 million worth of gold in 1960. If any of you lived in Western Australia in 1960 and remember the economy then

and then think about the economy we have now, it is pretty easy to decide which one you would prefer: you would prefer the one with the resources sector.

On the world scene, Western Australia is a major source of raw materials for the rest of the world. We produce, by volume in the case of diamonds, 43 per cent; and by value, 31 per cent of the zircon, 25 per cent of the ilmenite, 25 per cent of the tantalum, 24 per cent of the rutile, 18 per cent of the alumina, 14 per cent of the iron ore and over 35 per cent of the traded iron ore, 12 per cent of the nickel, nine per cent of the LNG, eight per cent of the gold; and four per cent of the salt. So Western Australia in a world context is a very major producer of these resources.

But it is in gas that we see a very great future for Western Australia. In terms of location in Australia, it is found in Western Australia, a bit in the Northern Territory and you can forget the rest. There are very large resources of gas off the coast. The present usage in Australia is about 1Tcf, so we have over 100 years worth just in the near regions off Western Australia. That is a very small amount of the total amount that is probably there. If we do not do something with that gas it will basically just sit there and sit there. Doing something with that gas means that we have to turn it into something that can be exported. So, really, looking at gas as being the driver for future development in this state we are looking at three things: gas going into petrochemicals and chemicals, gas going to industry for energy needs and gas going into energy intensive metal processing.

Turning for a moment to the export sector, and this is particularly where LNG is important, there is a very large LNG industry in the north of the state that is of national and international significance. As Ross has already said, we certainly feel that the emphasis should not be on seeing that as a Western Australian industry. We see it very much as an Australian industry and therefore part of the overall Australian solution to CO₂, not just a problem for Western Australia. You can see here why LNG is going to have a very large role to play in a post-Kyoto world, or even in the world now, and that is because, in terms of the amount of CO₂ generated for each megawatt of electricity, LNG is far below coal and oil. One of the tricky pieces here, and it has been talked about in the other forums, is that you have a strange situation where, if we export LNG to Japan, Japan does very well and preens itself and says, 'We could've used coal but we haven't; look how much of a good job we have done in terms of CO₂ emissions.' On the other hand, everyone looks at Western Australia and says, 'You didn't export coal but you did export LNG and you have actually increased the amount of CO₂ you have produced in Australia.' So it is quite a perverse result. Under the present rules we get no credit, in a sense, for helping Japan meet its aims by importing our LNG. They get credit but we get a loss. This is an issue in Kyoto that needs to be addressed at some point.

One of the concerns we have with LNG particularly is the leakage of projects to non-annex 1 countries. There are various projections on how much might occur but, if you take just these industries of LNG, alumina, nickel and iron ore, most of our competitors are in the non-annex 1 countries. So if we make it difficult for those industries through the way we handle the CO₂ emissions and handle Kyoto, we are basically giving a free kick to those developing countries.

Carbon permits have been talked about a lot as being the way to go in managing reductions in CO₂ emissions. Looking at this diagram, what we have done here is to try to project out what carbon cost would mean to some of the major commodities in this state. Starting from the

bottom there are iron ore, nickel, LNG, alumina and hot briquetted iron. We are showing in this diagram that, as the carbon cost in a traded sense goes up per tonne, so does what we are calling equivalent tariff on exports. For example, if the carbon costs were, say, \$100 a tonne it would mean that, effectively, a tonne of HBI sold from Western Australia compared with anywhere else in a country that was not involved in trading would have at least a 20 per cent tariff against it. So you have a situation where DRI is mainly produced in non-annex 1 countries, they do not have trading and suddenly our HBI on the world market has a 20 per cent disadvantage compared with that product.

Senator LUDWIG—That is assuming no litigation and that they have not tried to capture the CO₂ emission or scrubbed it?

Dr Murphy—In this?

Senator LUDWIG—Yes.

Dr Murphy—No. It is just saying that, if they had to buy a carbon emission credit at \$100 per tonne, that would amount to a charge of 20 per cent on their selling price.

Senator LUDWIG—As their emission is now?

Dr Murphy—Yes.

Mr WILKIE—And that is opposed to a country that does not?

Dr Murphy—That is right. The thing with DRI is that it is a modern technology so, if you do it somewhere else, you would find that the carbon emission there would be about the same.

ACTING CHAIR—What is DRI?

Dr Murphy—It is directly reduced iron, and hot briquetted iron.

To further emphasise the point of our concern in terms of us compared to annex 1 and emissions trading, I have done some calculations here that put in aluminium, gas to liquids and electric arc furnace using HBI. For comparison I have left the HBI figure there, which is the brown one. What this shows, if you flip back to the other slide, is that the raw material end of the equation, which is down here, tends to fall below 20 in that equivalent tariff measurement. If you look at this one, these lines are quite a lot higher and you end up in a situation where, if you are making aluminium in this state at a carbon cost of \$100 a tonne, you have an equivalent tariff of 35 per cent. If you are making gas to liquids, which is taking natural gas and turning it into a liquid product which can be sold on the world market, you are looking at about 28 per cent, and with electric arc furnace it is about 20 per cent. The point I am trying to make here is that if we are prepared just to be a quarry you have got the first slide and the issues that raises in terms of carbon credits and trading. If we want to process, the problem for us gets quite a lot higher because there is quite a lot more energy used in producing that material and therefore you end up with a higher tariff and a greater disadvantage compared to other people who are not involved in emission trading.

There are a couple of questions that come out of all of this, particularly for the resources sector. One is how do we meet Kyoto—in this context more the resources sector than anything else. How do we do that while we maintain international competitiveness, given the fact that developing countries are not involved in it? How do we provide certainty for investors in that environment and how do we balance the economic mechanisms and regulations as we go down the track?

Some of the things we also need to keep an eye on include credit for early actions. As I said, Western Australia right now is basically a natural gas economy and, in the present jargon, a lot of hanging fruit has gone. We do not have the opportunities to make easy gains and we could end up being penalised. So we would like to see some system of credit for early actions. Certainly reductions have to be shared and there needs to be some way of getting credit for the benefits down the supply chain, as I indicated with LNG.

What we hear from industry, talking to us as a department, is that they certainly want a greenhouse policy, and Kyoto is part of that, that gives them some certainty for investment, makes arrangements for equitable cost sharing, causes any measures that are taken to be cost effective and is based on pragmatism; in other words, we do not do things that unnecessarily disadvantage us.

ACTING CHAIR—Have you got any further opening comments you want to make?

Dr Field—No, but some technical ones.

ACTING CHAIR—Let us discover some of those technical things through some questions. I am sure my colleagues are champing at the bit. There are certainly a few things that come to mind. Is there any estimate that has been done on the cost to potential investment in Western Australia because of the uncertainty created by Kyoto? Perhaps it is anecdotal—

Dr Field—I will defer to my colleagues on that.

ACTING CHAIR—I am talking about potential investment lost or deferred because of this uncertainty.

Dr Murphy—To date we could not say that anybody has not invested here because of Kyoto or greenhouse, but certainly there is a lot of concern about what might happen. People are taking a pragmatic view, which is that something will get worked out.

ACTING CHAIR—People as in businesses here, businesses offshore, or a bit of both?

Dr Murphy—It is businesses offshore that we talk to in that context. They are aware of annex 1 and what that might mean, but at this stage Kyoto is not ratified and, as I said, they are taking a pragmatic view and factoring it into their equations, I guess. But nobody has actually come to us and said, ‘We’re not coming to WA because of greenhouse.’

Mr BAIRD—The investors that you are dealing with are basically the large multinationals in the main. Looking at alumina, for example, the investor here is Alcoa, which is also one of the major suppliers out of some of the other countries like Surinam or whatever. Even though

George W. has slowed down the Kyoto process, they could hardly in the US context stop investment and expansion in Australia and at the same time quietly move on the investment in Surinam. That would not work. There are very few major resource investors with head offices in Third World countries. I cannot think of any. So in terms of the guidelines established by the countries, I think it is fairly questionable in relation to investment decisions. Sorry, Mr Acting Chairman.

ACTING CHAIR—I was actually party to some discussions—they were not really discussions in a formal sense, but they were certainly pre-emptive discussions—between Austrade and the minister for foreign affairs from Taiwan just a week ago. LNG was the hot topic. Austrade were trying to sell LNG joint ventures involving Taiwan, amongst other possibilities as well. They see it as a viable thing. There are people with money wanting to invest in all these sorts of things. They did not bring up greenhouse, but it just struck me from your presentation that they are probably more likely to want to jump into something if they saw some of the credit for early action and some of the credit for benefits down the supply chain factors that you have raised. Obviously, those matters are major hurdles that need to be jumped in order to ensure there are no impediments to investment.

Dr Murphy—Certainly. Our understanding is that Taiwan is one country that has made a policy decision that it is not going to burn any more coal, so it has to either go nuclear or import natural gas. There has been a lot of discussion from Australia about selling them LNG, but no contracts have been signed yet.

ACTING CHAIR—Nothing has been signed because there is major jockeying between industrial titans in that country over who is in what consortium, who is doing what, who is with who and all these sorts of things. I know that from my own exposure to those discussions 10 days ago. I am concerned that, in a nation that is desperately looking for foreign investment, the Kyoto Protocol seems to be consigning us to being a quarry at the very best. That seems to be what I have got out of what you have shown us today, and that would be a fear also of the Western Australian government in its efforts to try to expand its industrial base.

Dr Murphy—Yes. As I say, if we want to use that gas, then you have to go into the sorts of things I was talking about, which is gas to liquids, LNG or DRI. All of those are energy intensive and you end up emitting CO₂.

ACTING CHAIR—Three of the five here today have been involved directly in a lot of the processes anyway, but are you more than satisfied about the consultation process as far as the Australian Commonwealth government is concerned with Western Australia?

Mrs Judge—I would say it has been excellent. We have been able to send Western Australian representatives as members of the Australian delegation for most meetings.

Dr Field—The other point, not just from a state point of view, is that you saw those figures for the national LNG resources. They are more than 100Tcf. In a national sense down the track, you would think there will be national pipelines.

ACTING CHAIR—You can certainly see that potential. Also, as a Queenslander, I am very conscious of the Central Queensland shale oil deposits that are lying there in the ground. There

are billions and billions and billions of dollars worth of export potential and no-one is game to touch it.

Mr BAIRD—But that was there before this came up. That has been sitting there waiting for the investors.

ACTING CHAIR—It was there before the dinosaurs were wandering the earth, too, Mr Baird. What is concerning is that the practices here in Western Australia—and for that matter, the practices that would be involved in the Queensland operation—would be arguably more greenhouse friendly and more environmentally friendly than the practices in some of the countries that have an enormous extra amount of pollution they are allowed to expend under the current Kyoto Protocol. Would that be a reasonable point?

Dr Jenkins—Yes. If you undertake benchmarking on CO₂ per tonne of product, Western Australian industry is certainly a world leader.

Mr BAIRD—In some ways, you are in a comparable position to Texas, and it is not surprising, considering where the President is from, that he took the decision he did. What I saw was impressive and it makes for a very good argument. You can look at it entirely from a parochial, Australian viewpoint and say, ‘Just keep on going, guys. Keep on building like there is no tomorrow,’ but we have got a global problem. We saw a professor from one of the American universities, and he said that, by the year 2100, we will have a five to six per cent increase in the earth’s temperature. Can we keep on going like this as a planet? What do we do? It obviously disadvantages Australia, and Western Australia in particular. We are all very mindful of that, and your economy is going well and your growth rates are still faster than any other state. It is a question of how we can be responsible world citizens and also look after our very important mineral industry, which is very successful and is known for its world’s best practice. You have some of the best operators on every criteria. For example, Alcoa, in terms of its environmental policies, has been first rate. The credits idea that you talk about is an excellent one. The credits you get downstream should be considered. If you were the president of the world, what would you be doing?

Dr Jenkins—We can come to that in one of the next presentations.

ACTING CHAIR—If you are going to talk about what you would do as president of the world, would you be putting a lot of effort—and I do not think this is a parochial view at all—into cracking down on those countries that are happily receiving high polluting industries because they have the capacity to pollute more, and countries that are cracking down on greenhouse emissions and exporting pollution to other countries? Is that really playing fair? How do you handle that?

Mrs Judge—I do believe it is a problem that the developing countries are not going to be impacted on by the Kyoto Protocol in the same way as annex 1 countries.

Senator LUDWIG—Isn’t that the same argument that they are putting? What you are saying from a parochial point of view is that you want room to expand and grow your economy. Isn’t that the same as what the developing countries are putting? I really need to know why you see yourselves as different.

Mrs Judge—Because we will have benefits for the world in terms of having access to cleaner fuel.

Senator LUDWIG—They have the same argument. Are you saying that they would not?

Mrs Judge—They have a different argument in that they want the developed countries to pay some money to them to help them develop.

Senator LUDWIG—I do not think it is as simple as that.

Mr BAIRD—But you cannot argue that logically. You say the ‘other sources’, and your list over here has these countries and you know that the same people who are developing them in those countries are the same ones who have got their plants here in many cases.

Senator LUDWIG—It is the same multinational company. The same one that is here was in Sierra Leone. It is not there any more, unfortunately; well, there is a shell of it. They are the same company. I cannot understand where they are different companies and they would have a different viewpoint. They have the same viewpoint. They are looking at developing a resource for profit.

Mrs Judge—It is a very complicated issue. When you look across all of the developing countries, they all have different scenarios and different things that they are trying to achieve from the negotiations. Perhaps it would help if we went on to our subsequent presentations.

ACTING CHAIR—I suspect that we should do just that; otherwise we will have a major moral argument about companies exploiting underpaid developing country workforces.

Dr Jenkins—I would like to cover the WA emissions profile and its comparison with Australia’s profile, because there are some significant differences; some of the work that we have done on cost effectiveness of mitigation measures; what we are doing with the assessment of new industry, which has certainly been the focus of Dr Murphy’s discussion; the issues with carbon sequestration, which is particularly of interest to Western Australia; the significance of climate change, which has already been raised; and some of the work that has been done specifically for Western Australia on the implications for greenhouse for climate change.

If you look at Western Australia’s net greenhouse emissions—and the most recent data compares 1990 with 1995—you get a profile with relatively high energy, transport levels, fugitive emissions, process emissions which are relatively low, quite high agricultural emissions, quite high forestry sinks and some waste generation. You will also see estimates for clearing. With the changes that have occurred in the first five years of the Kyoto Protocol time, you can see quite a significant increase in energy, which is what you would anticipate in terms of industrial development. Transport increases are comparable with the overall figure for Australia. There have been some reductions in fugitive emissions. There are process emissions coming from a fairly small base—an increase comparable with energy. There has been some increase in agriculture, but forestry sinks are staying the same. Waste is increasing at about the rate of production increase, and there has been a substantial reduction in clearing in the state since 1990.

If you are looking at the percentage change from 1990 to 1995, even taking clearing into account, you are looking at 11 per cent over the 1990 baseline levels. You would be aware that there are much more recent figures for Australia. The 1999 figures have just come out. You can see on the overhead transparency the percentage change in terms of energy over nine years, which is comparable with Australia's change. There is a transport figure for twice the period—about twice the rate. The fugitive emissions are very similar. With process emissions, again, there have been some reductions. Agriculture is about the same. In forestry there are some reductions. Waste is at a comparable level to 1990, and there has been some reduction in clearing emissions across Australia.

What is important is to compare the percentage contribution from different sectors between Australia and Western Australia. If you look at energy, it is 49 per cent of Australia's emissions, whereas it is 56 per cent of Western Australia's emissions. So you have a higher figure there. Transport is comparable. Fugitive emissions are comparable. Process emissions are comparable. In agriculture, Western Australia has a much higher percentage because it represents a third of the Australian landmass. Forestry has a much higher sink capability in Western Australia related to land area. Waste figures are about the same. You can see in terms of clearing a markedly reduced contribution compared to the rest of Australia.

ACTING CHAIR—Why is that?

Dr Jenkins—It is because your state is still clearing.

ACTING CHAIR—My state of Queensland?

Dr Jenkins—Yes.

ACTING CHAIR—I think Senator Ludwig is responsible for that.

Senator LUDWIG—I did not ask the question. You do not go asking a question if you do not know the answer.

Mr WILKIE—We worked out that Wilson was wrong.

Dr Jenkins—Dr Murphy has certainly indicated the sorts of increases that you would expect to occur in Western Australia in relation to industry. Within the state, we have looked at some of the measures that could be taken to reduce greenhouse emissions. If you look at no regrets, and no regrets means that it is worth making the investment, not specifically for greenhouse, but for energy efficiency and cost savings or for other social reasons; if you look at industry use of greenhouse efficient technology—and we are primarily looking here in comparison to a 1990 business as usual benchmark, so it is looking at what technology improvements have occurred since 1990—for Western Australia, you are looking at about 15 megatonnes per annum that can be achieved on a no regrets basis. Dr Murphy's graph which showed business as usual figures versus the expanded figures incorporated those reductions. But you can also find with land care and salt land planting that there is a fairly high sink capability that is available. Even though we have reduced land clearing limitations substantially, some reduction can still be achieved. With energy management measures, only a relatively small component is involved, mainly because many of the energy management measures were in place in Western Australia in 1990. On

energy reform, one of the major mechanisms being used in the UK where they are moving from coal to gas, there are only limited opportunities in Western Australia. Again, if you look at Dr Murphy's graph, most of the switching to natural gas in Western Australia occurred prior to 1990.

Mr WILKIE— What about in the area of vehicles?

Dr Jenkins— In terms of vehicles, you are looking at changing vehicle size as the major mechanism, or changing the fuel. In terms of what Western Australia can do to achieve that, that is relatively limited. You would need to look at that on a national basis rather than on a state basis. This is more what we can do in terms of state measures.

If you look at measures that would be less than the expected traded price in carbon, and we have used the figure here from ABARE of \$30 per tonne of CO₂ equivalent in Australian dollars—and you will be aware that some of Dr Murphy's graphs were in US dollars per tonne of carbon although I think one of the graphs has both figures—

Dr Murphy—Yes.

Dr Jenkins—On plantations, and we have just used a benchmark figure here of a million hectares of plantations, that would give you the order of 10 megatonnes per annum. Pastoral regeneration would give you about five megatonnes and renewable energy, and this is the two per cent increase, gives you about 0.7 megatonnes. The work highlights that we need to maintain the greenhouse efficiency of industry, particularly the new industry, and we need to look at the issues relating to sequestration and land management which are incorporated in the Kyoto Protocol. Where they would appear to be some agreement on the article 3.3, which relates to reforestation of cleared land, there is still a lot of debate about the land management measures. One of the key points we wanted to make in this presentation is that getting the accounting rules correct in terms of carbon sequestration, for plantations and land management, is a very high priority for Western Australia.

Mr BAIRD—What about transportation? You do not have any changes there. Does that come under industry?

Dr Jenkins—We looked at all of the various components, and these are the ones that provide the highest returns. We have technical reports which go through the analysis of all the components of the National Greenhouse Strategy. But, in terms of transport, you are not getting the returns that you get—

Mr BAIRD—Is that because you are doing it on a strict ORI basis?

Dr Jenkins—No.

Mr BAIRD—For example, if you considered government grants for building railways or improving rail operations, would that not appear at all?

Dr Jenkins—We certainly looked at the new railway from Perth going south. It is an electric railway. You are getting a reduction in vehicle emissions, but you are also getting an increase in

power generation. So the net gain is positive, but not substantial. There are some benefits there. I have just summarised the key benefits rather than all of them, but, if you want further information, we can provide it.

ACTING CHAIR—On the accounting matter, you are suggesting that, unless we improve our accounting initiatives to create further sinks and basically improve our position so that we can develop LNG further, perhaps, and so that we can develop Southern Pacific Petroleum in Central Queensland, we may rob ourselves of some of the economic opportunities that are ahead of us.

Dr Jenkins—What we are looking at is how we could mitigate it. Certainly, if there are global issues as well as Australian issues, there should be an incentive for getting carbon out of the atmosphere, whether you are looking at what is happening nationally or internationally.

ACTING CHAIR—You mentioned Queensland apparently doing a lot of clearing. If we stop that, it will improve a certain position; if we plant more trees, we will improve the whole scheme of things; and we will then leave the opportunity for further positive expansion of, perhaps, these resources as well, if that is the case.

Dr Jenkins—Yes. You need to have a balanced strategy in terms of economic development and greenhouse mitigation.

If you look at what we are doing in terms of the assessment of new industry, as Dr Murphy mentioned, we are looking at going from 16 to 40 megatonnes of CO₂ equivalent between 1990 and 2010, which is 76 per cent of Australia's allowable increase. So if you just take the eight per cent of 1990, that increase is 76 per cent of that allowable increase. We have been looking at the assessment of new proposals. If you look at the Kyoto target as being a reduction in 2010 from 143 per cent down to 108 per cent—143 per cent is seen as business-as-usual increases from 1990 in Australia—that is a 25 per cent reduction, so 25 per cent of 143 will bring you down to 108. If everyone were sharing equal pain in what was expected as business as usual in 1990, a 25 per cent reduction would mean that Australia would meet the Kyoto target.

The Australian target is a 25 per cent reduction from 2010 business as usual. Western Australia has been seeking, for major industrial development, a demonstration of 25 per cent reduction from the 1990 business as usual. I have two assessment reports that have gone through the assessment process—there is the greenhouse trigger already in Western Australia—both for the Murrin Murrin nickel project and for the Woodside North West Shelf expansion. Both projects have achieved a 25 per cent reduction from business as usual. In terms of making their contribution to an equivalent effort for reducing Australia's emissions, they are meeting the expected target, if you take it as an equitable across-the-board figure. I have copies of the assessment reports if the committee would like to see those.

Coming on to another major issue, which is carbon sequestration, Western Australia, being one-third of Australia's landmass, has a large area of cleared agricultural land and a large area of pastoral land. But, if you look at the economics, the plantations or regeneration of pastoral land are not economic on their own. Carbon value will change the economics, and that is within the expected traded price. We would also get concurrent mitigation of salinity and land

degradation impacts. It is government policy to work to enact carbon rights legislation within the state to establish rights in sequestered carbon.

Senator LUDWIG—Is that similar to New South Wales?

Dr Jenkins—New South Wales is very restricted.

Senator LUDWIG—Yes, I know that, but I was wondering what you are looking at.

Dr Jenkins—We are looking at a broader coverage for carbon rights, so it would not be confined to the forest service and the power companies, which the New South Wales one would be; it would be available to any person.

The other key point that we made earlier is that there is a need for agreed carbon accounting rules, because, if you are going to establish carbon rights, you need to be able to quantify what those rights are worth.

Senator LUDWIG—What stage are you up to in relation to legislation to enact carbon rights?

Dr Jenkins—There is a draft version of the drafting instructions available at the moment for stakeholder review. The key is looking at what changes are required to the Land Administration Act to set up carbon rights and covenants so that you can ensure that the carbon you are sequestering at some stage in the future is actually going to be there when it comes to the accounting period. So it is a combination of rights and covenants that we are looking at in terms of changes to the Land Administration Act.

Senator LUDWIG—There is a perpetuity problem, isn't there?

Dr Jenkins—Exactly, and I think it is an important point. Carbon sequestration would provide the benefit in the short term in meeting the first commitment period in the Kyoto Protocol. You would have to then look for other measures going beyond that commitment period.

Senator LUDWIG—Is there a version open for public discussion yet in relation to that legislation?

Dr Jenkins—Not yet, but there will be shortly.

Senator LUDWIG—Can you let the committee know when that occurs.

Dr Jenkins—Yes.

Senator LUDWIG—We would not mind a copy, as well—or I would not, anyway.

Dr Jenkins—Certainly. The issue of climate change has already been raised. If you look at the work that has been done, we commissioned CSIRO to do some finer scale modelling for the

south-west of Western Australia—you would be aware of their modelling across Australia. Their modelling indicates an air temperature rise of between 0.5 and 1.6 degrees Centigrade in the period 2010 to 2040—so it is a fairly broad range because of the uncertainties in the model—an air temperature rise of two to 4.5 degrees by 2100 and, of particular significance, a winter rainfall decrease of 20 per cent by 2040 to 2070. There is also some work that has been undertaken in Western Australia on climate variability analysis. There has already been a winter rainfall decline of 20 to 25 per cent since the 1960s, and that is certainly a water supply issue for the southwest.

Senator LUDWIG—Does your rainfall fall in the winter?

Dr Jenkins—Yes.

Senator LUDWIG—It is a question that Queenslanders have to ask.

Dr Jenkins—Of course with the reduction in the rainfall there has actually been a 40 per cent reduction in the run-off. So it is compounded when you look at how much water is actually becoming available. There has certainly been a sea surface temperature rise in the Indian Ocean, and work recently completed by CSIRO for us indicates that between 10 and 60 per cent is attributable to the greenhouse effect. It does mean that 40 to 90 per cent is attributable to other variations. There would appear to be a double whammy for Western Australia in terms of the greenhouse predictions going in the same direction as natural climate variability.

Mr BAIRD—Is the run-off because you do not have the same absorption in the soil?

Dr Jenkins—That is right.

ACTING CHAIR—I am not a student of statistics. Since the 1960s there has been a 20 to 25 per cent decline in rainfall. Do you then also test that against any measure that shows there is some sort of pattern of decline in the past 150 years or however long it has been since Western Australia became Western Australia?

Dr Jenkins—This is compared to the 100-year record, but there has also been simulation work done trying to look at the last thousand years of climate variability. That would appear to be a partial explanation of some of the winter rainfall decline.

ACTING CHAIR—So there is a pattern of decline in the past, and then there is the greenhouse effect—is that what you are saying?

Dr Jenkins—Yes, that is right.

ACTING CHAIR—I do not want to leave those sorts of figures hanging without asking that question, because people project that as doom and gloom and destruction and despair, whereas in fact there may well be some kind of thing that God ordained.

Dr Jenkins—That is one of the reasons for doing both the greenhouse modelling work and the climate variability. What we are really finding is that you need to make allowances for climate variability irrespective of greenhouse.

Mr WILKIE—Have there been any studies done as to whether, as we increase plantations and as we reduce clearing, rainfall starts to increase as a result of that?

Dr Jenkins—I do not think there would be enough of a record to demonstrate that, but certainly some of the climate models tested suggest land use change as being one of the potential reasons for this decline. That is one of the alternative explanations.

Mr WILKIE—But as to the higher amount of clearing? The reason I mentioned that is that I have heard evidence given once before that as you reafforest an area the rainfall will increase. I am wondering if we have done any study of that in Western Australia, given that clearing is starting to reduce and we are putting more plantations in.

Dr Jenkins—We have certainly tried to explain the winter rainfall decrease in relation to clearing effects since 1960. That work is documented. I have a copy of the most recent report produced as part of what we call our Indian Ocean climate initiative, which tries to work out what is causing the changes in the weather patterns. The particular concern was with water supply, but clearly this is a broader climate study that has been undertaken and that information is certainly in the public arena.

Mr Chairman, that was what I proposed to cover. Dr Cox, who is looking after CALM, which has the forest management responsibilities within the state, can give you more detail in terms of carbon sequestration for different types of forest species.

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

That the overheads presented by the Western Australian government be received as evidence to the committee's inquiry into the Kyoto Protocol.

Dr Cox—Dr Jenkins has already introduced the topic of the potential for sinks to effectively reduce CO₂ concentrations and using some of those sink credits to effectively enable industry development to take place.

Overhead transparencies were then shown—

Dr Cox—What I am presenting here is a summary format, with rainfall on the left-hand side. The different rainfall zones have the capacity to have different types of vegetation. That leads to different areas that are suitable for revegetation for one reason or another. We then have a column which indicates the projected planting areas which could eventuate if the economic circumstances were right. We then estimated the carbon to be fixed and modified one by the other to look at the total carbon sequester using those various methodologies. What one sees is that there are already—in the high rainfall areas; that is, greater than 600 millimetres—some opportunities in the commercial blue gum plantations and the commercial maritime pine plantations to get significant carbon sequestration at marginal cost. They are already being planted for commercial purposes; if one then has a carbon credits system in place, then those

credits are available for on-sale or use by others to offset the increases in CO₂ production from other industries.

Before I go on to address some of your specific terms of reference, I want to highlight that, as we get into the lower rainfall areas, there are vast opportunities to plant both commercial species and species for land care purposes to address a whole range of issues. The first issue is the one that was addressed in the national land and water audit, which highlights that Australia has a major problem in terms of dry land salinity. Some 16 million hectares are expected to be affected in due course by that problem. What we know is that if one plants various types of vegetation in those areas, one can in fact reduce the water table. So one has the benefit from the vegetation for production and economic development purposes, as well as achieving an environmental outcome.

We in Western Australia have large areas that are suitable for that purpose—an estimated 16 million hectares of farming land plus a vast area of 85 million hectares which is pastoral country, portions of which could be utilised for revegetation purposes to achieve a combination of economic and environmental outcomes. I would like to highlight a couple of examples. One is the case of maritime pine, a commercial species that is used for woodchip and pulping purposes, which currently, in the low rainfall areas, is subeconomic but does have a beneficial environmental impact. The challenge is to put in place a framework that enables the carbon credits to be measured, to be registered and to be traded. And then, if the price is right, that tips the scale from the product being subcommercial to being one where the grower gets an adequate rate of return on their investment.

When we come to land care species, there is no return other than grazing or environmental impacts, but again, if one gets a significant carbon credit and if that credit is of significant value, one can undertake, at zero cost, to achieve an environmental outcome—a benefit from the fact that the carbon credits are sold.

The final one there is pastoral regeneration. The government, with the help of the federal government, is presently acquiring cattle stations and sheep stations in the Murchison-Gascoyne region to achieve a series of conservation, including biodiversity, outcomes. Once those are destocked then one has the ability to get substantial carbon credits from that as well. What do we get out of that? Australia in its international negotiations needs to push very much articles 3.3 and 3.4. They are very important to Australia because all of a sudden it has the ability to get a credit for the things it does that have secondary conservation outcomes. That will, in fact, pay some of the bills associated with achieving those conservation outcomes and at the same time it will have the capacity to use those credits for other purposes, including industrial development.

In the context of article 3.4 we as a nation need the broadest interpretation of the definition of 'forests'. I would actively advocate as part of Australia's negotiating position supporting a minimum height of two metres because that would enable all mallees to be included in article 3.3 rather than in the more uncertain article 3.4. Secondly, I would encourage an interpretation based on 10 per cent canopy cover. If it included 10 per cent canopy cover then the sparse vegetation that occurs in the dry rainfall areas would still be included in the definition of Kyoto forests.

The other issue we need to address in that same context is the minimum area for calculation purposes. We support the Australian definition of 0.3 hectares as the minimum unit size. I understand that is the minimum unit that can be picked up by satellite technology and it would certainly accommodate some of our row farming systems that are in place or that farmers are proposing to put in place. So there are some quite practical things we can do to optimise Australia's position in those international negotiations.

There are some problems though when we talk about article 3.3. My understanding at present of the way the fine print for article 3.3 accounting is written is that, because there is a definition of deforestation there, anybody who harvests their plantation in effect is debited for the amount harvested but only credited for the amount accumulated during the first credit period. So, if you plant now, you are debited for the growth between now and 2008 but you only get credit for the areas that are accumulated in 2009 and 2010. Our Australian negotiators are aware of the issue and will certainly be taking it up in the next round of COP negotiations. It is an important issue for Australia. We want to make sure we get credit for the totality not just for the first credit period.

We also want the widest interpretation in article 3.4 because, as you can see on this table, we have a series of land areas where there are opportunities for landcare species to be planted. They are much harder to measure. You have not got a single stem you can measure or height you can measure. You usually have multiple species and there are methods needed to quantify the growth in those areas. So we need a definition of 'revegetation' that enables us to accommodate far more plantings for biodiversity or revegetation purposes, including things like saltbush, or for that matter the regeneration of destocked pastoral areas where the natural vegetation is regrowing. We need to have a system that accepts all of those under the definition of 'revegetation' and that puts in place an affordable system of measuring the quantum per unit of the area of carbon fixed—for example, the pasture is quite low; it is only five times per hectare. If we had that system in place, we could get very substantial credits as a nation. I have only got the Western Australian figures here, but the same applies in South Australia, the Northern Territory, New South Wales and Queensland because they also have large areas of pastoral country.

The message I want to leave us with is, firstly, there are opportunities in Western Australia to benefit from sinks. Secondly, in the international forums we need to maximise the flexibility that enables us to optimise our outcomes from sinks. Thirdly, as a nation we need to put in place a framework—we want an account for carbon credits, we want to trade carbon credits and all the things that are associated with that. We also need in place a policy framework where the federal government encourages land owners and land users to start experimenting with some of these vegetation types in a trading framework and puts in place an incentive system that encourages the maximisation of these plantings. I am happy to answer any questions.

Mr BAIRD—Do you have an estimation of cost?

Dr Cox—We have, in the sense that something is being planted for a dominant economic outcome. In fact, with the current blue gum plantations the cost is zero—in other words, the carbon is a side benefit from the prime purpose.

Mr BAIRD—You have already indicated that quite a number of these would be submarginal in terms of woodchipping, for example. In terms of the government input to make it viable, have you worked through all of those projections?

Dr Cox—We have.

Mr BAIRD—It is all very nice in theory, but there is a dollar figure attached to them.

Dr Cox—There is, but for the time being let us take it a step at a time. Firstly, we have the situation where certainly for some of the plantations the prime purpose is an economic outcome which can be sold in the marketplace and the shareholder can expect an adequate return on their investment. The second category is where maritime pine currently sits in the medium rainfall area—the 400- to 600-millimetre area—and if you invest in maritime pine you are likely to get a return of between four and six per cent, which a private investor would not accept as adequate. That is for timber or chip production. In those circumstances, if there is a marketplace out there for carbon and if that carbon is valued at anything more than \$A10 per tonne of CO₂, it in fact turns the economics of that plantation around—from a return of four per cent up to one that is between eight and 10 per cent. So, if the marketplace prices carbon at a certain price, those plantations then become commercial plantations if one adds up the economic values of all the components that are produced, of which one is carbon. And the bonus, which is free, is the environmental outcome, which is the drawdown of the watertable.

Mr BAIRD—As a government you cannot manipulate the price in the marketplace, but you can assist in terms of an injection of subsidies.

Dr Cox—If we then go to the other extreme—which is what sort of subsidy is required at present to induce people to plant the species to achieve environmental and other outcomes—the calculation works backwards. So, again using a pseudo market price, if governments are prepared to effectively subsidise the cost of planting the commodity—whether it be a tree or a species for revegetation purposes—the other benefits then turn the whole thing around to the stage where it would be a commercial proposition. What does that mean? In the case of a maritime pine plantation in the medium rainfall areas you need inputs ranging between \$200 and \$300 per hectare up front as a capital contribution. If one goes into pasture regeneration, the quantum is very much less—you probably only need of the order of \$40 or \$50 per hectare to effectively achieve a range of outcomes.

Mr BAIRD—Have you also factored in the possibilities of some of those energy intensive companies that operate in this state moving themselves into carbon credits?

Dr Cox—We already have that situation in this state. Two of the energy companies had taken out contracts with CALM before a part of CALM became the Forest Products Commission. Effectively, the Forest Products Commission, as it now is, has plantations that have been paid for and are owned by the energy companies.

Mr BAIRD—Who are the two companies?

Dr Cox—BP and Chevron. One of the others—I do not want to go into the details because it is commercial at this stage—is looking at having a very active involvement in the planting of oil mallees, but doing it directly through farmer to farmer arrangements.

Senator LUDWIG—You talk about those matters that you say you could argue at COP6 would benefit Western Australia or Australia generally. How could you rationally argue those when our target of 108 has been passed and there would be the difficulty of your having to say that we do not have a domestic trading emissions system, nor one even on the drawing board, we do not have a carbon credit system in place in a significant way in Australia and we have not adopted a policy of ratifying the Kyoto Protocol at this time? So, when you go to the world stage to argue significant advantages, do you think they would take you seriously?

Dr Cox—It is fair to say that there is a mixed reaction, but the mixed reaction, if kept in context, sees a sense of balance. The reason why I make that point is that the European nations certainly argue that the first priority be a reduction in emissions. If we were a brown economy with inefficient plant in place, that is where you would start. As indicated in some of the earlier presentations by Dr Murphy and Dr Jenkins, our industry, particularly in Western Australia, is already very energy efficient, so we can say that the potential for emission reductions is limited. There is a balance between a need to reduce emissions, and I think that is Australia's negotiating position—

Senator LUDWIG—Isn't the problem that you do not get past that stage because you do not get to the stage of arguing for optimising the use of your sinks because you have not passed go? You have not gone to the world stage and demonstrated that you have had a reduction in your greenhouse gas emissions; in fact, you go to the world stage and they say, 'We have benefited you significantly at COP. The benefit that you used with that was to increase it further.'

Dr Cox—When talking about it with individual people at the conferences, we find very quickly that the argument is about balance, with the balance being between, 'Yes, it is desirable,' and, 'There are already measures in place to encourage people to reduce the emissions.' If we look at those numbers nationally, the sinks are never going to provide the total answer anyway. They can provide part of the answer, and they effectively allow the buying of time to put in place the new technologies. So the argument we should use as a nation, and as a state, is that it is about balance—a balance between reducing emissions and the opportunity for biological carbon accretion.

Senator LUDWIG—I am curious about the view that you have adopted. I am not sure which department may answer this question in relation to emissions trading. Do you say it is not possible on a domestic basis? I put that in a frame that you would know full well—perhaps better than me—that America has already adopted a sulfur dioxide credit emission standard that has had some benefit in reducing sulfur dioxide. They have a clean air legislation which has a domestic trading system in credits, and so on and so forth, but you then argue that, in WA's view, a domestic emissions trading scheme should not be established until an international system is established. Is that your position, notwithstanding the evidence that other countries—particularly America, even given its position in relation to this issue—can effectively adopt an emissions trading system or a domestic trading system?

Dr Jenkins—If you look at the arguments that have been raised, the importance of having an international system is because you will get a higher price. That does not preclude the possibility of Australia proceeding in advance of an international scheme. The figures we have done more recently on what you would need to get some of the sequestration benefits show that you could do it below the current estimated figures for what a fully emissions trading system under Kyoto Protocol would cost, which is the \$A30 per CO₂. Current figures are running somewhere between \$2 and \$5, so trading is going on at the moment but not at a scale that will give you the values that we would need to get carbon sequestration. The key argument from our point of view is getting a firm basis so that you can trade within an international protocol, which gives you greater certainty and therefore greater dollar values. You could certainly proceed within Australia on an offset basis. If you look at the US system of pollution management, they started with offsets before they went to trading.

It certainly offsets our opposability with individual assessments. You would have seen that with the power station in Queensland—there was a plantation requirement to offset the use of coal. Certainly that has been raised as a possibility with two of the projects that I have just mentioned, with Murrin Murrin and with the North West Shelf expansion, where plantation offsets are being considered, and you could probably run an offset system in advance of having a traded system.

Mr BAIRD—Have you considered the possibility that you might find difficulty in access to certain markets unless you do make the changes—for example, the European commission, which usually adopts fairly strong pro environment guidelines, may say, ‘Because Western Australia has not met these guidelines and makes no attempt to we will encourage our member countries to direct their imports from countries that do’? So instead of the alumina coming from Pinjarra or Wagerup and so on they then come from Sardinia as part of the overall—

Dr Jenkins—If people were going to be rational in terms of their purchases they would actually purchase products on a CO₂ per tonne basis. On that basis what we have been doing in terms of our industrial projects is making certain that they are benchmarked against best practice. So if the Europeans were being rational on a CO₂ per tonne basis they would actually have a preference for Western Australian products.

Mr BAIRD—But if they are looking at where Italy sat overall in terms of the CO₂ emissions and so on and they were below the line and the indications are that you are heavily above the line then they may decide that this is where orders should go. I am only projecting that unless we do consider that it is possible that there will be penalties applied to us in the same way as we applied them in relation to Third World countries, which I am sure Senator Ludwig would helpfully support—

Dr Jenkins—If they were going to be rational in terms of their purchasing they would go to the country with the lowest CO₂ per tonne of product. That is the key response to that issue, and we certainly see a goal as keeping the Western Australian industries benchmarked to best practice in terms of CO₂ per tonne of product.

ACTING CHAIR—We have got to wind this up, but I know that Mr Wilkie may have a question or two. I am mindful of the needs of the next witnesses before the committee.

Mr WILKIE—I see we are way over time, but in your proposed conditions that you talk about in the conclusion you mentioned a timetable for entry of developing countries, and obviously developing countries have become a bit of a hot topic in the last few weeks. What sort of timetable are you proposing? Are you proposing one or are you just saying there should be one?

Dr Field—We haven't a proposal—

Mr WILKIE—Are you just saying it is something that should be considered and needs to be included?

Dr Field—Yes.

Mr WILKIE—Does the same apply for the suitable framework for compliance?

Dr Field—Yes.

ACTING CHAIR—Thank you very much. On behalf on the committee I acknowledge the heavy hitters that the Western Australian government has sent to us today. We seriously appreciate the depth of expertise and work that has gone into the presentation. It was first-rate and we learned a lot from it. Thank you very much for your time today.

Senator LUDWIG—I want to support that in the sense that it is very valuable to a get a state's view. We have a national perspective but we rarely do get an opportunity to hear directly from a state, which I think is a bit closer to the point. I do appreciate your efforts.

ACTING CHAIR—There is also the fact that three of the five, as we acknowledged earlier, have been working with the Commonwealth as well, and I felt that that level of expertise also showed. Thanks very much. I appreciate that.

Mr BAIRD—It is a pity that you are not doing a presentation with the whole of the committee, but we appreciate it.

ACTING CHAIR—Thank you very much. There will be a transcript made available to you in due course.

Dr Jenkins—We can make some more technical information available to you that has come out of some of our greenhouse coordination council documentation, which we will send through the secretary.

[3.21 p.m.]

SASHEGYI, Mr William Stephen, Manager, Industry and Resources, Chamber of Commerce and Industry of Western Australia

TAYLOR, Mr Martin, Environment Coordinator, Chamber of Commerce and Industry of Western Australia

ACTING CHAIR—Welcome. Although the committee does not require you to give evidence under oath, I should advise you that the hearings are legal proceedings of the parliament and warrant the same respect as proceedings of the House or the Senate. The giving of false or misleading evidence is a serious matter and may be regarded as a contempt of the parliament. Are there any introductory remarks that you would like to make before we then probe you with some questions?

Mr Sashegyi—Yes. I will tell you a little bit about what the chamber is and then just something about our overall position. The Chamber of Commerce and Industry is the peak employer organisation in Western Australia and covers all major sectors of Western Australian industry. CCIWA represents over 6,000 businesses of all sizes. Through its committee structures the chamber identifies and acts on members' concerns. The chamber is a participant in the greenhouse challenge, having signed a facilitative agreement in the year 2000. We are and will continue to be active in the Western Australian Greenhouse Council.

As an introduction, I would like to state that the chamber accepts the UN framework convention on climate change as a genuine international effort to address concerns over potential climate change due to change in levels of greenhouse gases in the atmosphere. CCI also accepts the reality that our direct role in international negotiations is limited. However, CCI will do what it can to support the development on a scientific basis of national negotiation positions for key rules under the Kyoto Protocol, particularly on sequestration and other carbon credit issues where Australia has significant opportunities, as you have heard earlier. This includes linking with CCI members with specific expertise.

However, the Kyoto Protocol is unlikely to achieve the objectives of the climate change protocol in the first commitment period because currently it does not address equitably all sources and all sinks of greenhouse gas emissions. It fails to put into effect the scientific reality that every unit of greenhouse gas emissions, regardless of its source, has the same global effect—and this is set out in some detail in our submission.

We note that in the Prime Minister's statement of November 1997 in the lead-up to Kyoto that the government set three objectives for Australia's action on climate change: firstly, to meet our international commitments, secondly, to protect our hard-won international competitiveness and, thirdly, to grow the economy to improve Australian living standards. These commitments were reaffirmed in the recently released National Natural Gas Action Plan. We also note that there are many opportunities in Australia—and particularly in Western Australia—for developments to satisfy increased world demand at a lower level of global emissions in alternative developments elsewhere.

Despite strong business and community support for the three objectives it is becoming more obvious that meeting all three simultaneously is not possible on a no-regrets basis. Much of the difficulty now being faced by Australia and individual sectors is in addressing the question of how we achieve an acceptable balance in regrets. The chamber is adopting a two-pronged approach. Firstly, we recognise that Kyoto is a flawed outcome and we are continuing to work through the Australian Chamber of Commerce and Industry and other avenues to find improvements. We are undertaking actions to ensure that efforts to meet Australia's greenhouse commitments do least damage to our international competitiveness and our overall economy.

Secondly, we are taking positive actions to encourage Western Australian business to pursue energy efficiencies and cleaner production. The twin aim is to improve both environmental and financial outcomes. I would like now to pass over to Martin Taylor, our environmental coordinator at the Chamber of Commerce and Industry, and he will briefly discuss the actions that CCI is taking under an action plan developed through our greenhouse reference group and our structure of committees and councils.

Mr Taylor—As I said earlier, I am the environmental coordinator at the Chamber of Commerce and Industry of Western Australia. I am also the executive officer for the chamber's greenhouse reference group and the chamber's nominee on the WA Greenhouse Council—and you have received a briefing from some of the government members of that council.

One of the concerns that is frequently raised in regard to the Kyoto Protocol is that if Australia fails to ratify the protocol then greenhouse action in Australia will slow down or stop. As far as the chamber is concerned, this would not be the case. The chamber is a participant in Greenhouse Challenge. We have a facilitative agreement under the Greenhouse Challenge and we continue to encourage actions that improve energy efficiency within industries in Western Australia and thereby reduce greenhouse gas emissions. As evidence of our ongoing commitment I seek leave to table the latest draft of an eco-efficiency agreement that has been negotiated between the federal Minister for Environment and Heritage and national, state and territory chambers of commerce.

ACTING CHAIR—We will accept that as evidence.

Mr Taylor—Basically, the overall agreement sets out a set of eco-efficiency principles that we jointly agree as being appropriate for both economic and environmental improvements in industry, and there is a series of schedules that indicate the specific actions that each chamber will carry out. In our case we have two main activities. Firstly, there is a sectoral case study. That will probably be linked to the food industry which then develops a set of best practice examples. Secondly, there is a study of the financial material and energy flows in the Kwinana industrial area which is the major industrial area for Western Australia.

The second study will highlight existing linkages between individual industries, which already lead to major production and energy efficiencies, and it will provide a database of opportunities for further rate reductions and energy efficiencies. We see that as quite an exciting exercise in sustainable development, and it is serving as a model for similar initiatives in Gladstone and Townsville. With those few introductory remarks, I am happy to try to answer any questions you might have on these issues.

ACTING CHAIR—Thank you, gentlemen. I also acknowledge your submission. It is very helpful and appreciated by the committee, and the various figures and tables provide some interesting reading. One question that I want to pursue and clarify—although I probably know the answer—is emissions. Trinidad and Tobago is a very small member of the Commonwealth of Nations—1½ million people—yet it is way up there as an emitter of carbon. That is because it is exporting oil, I suppose, off the Venezuelan coast, is that right?

Mr Taylor—They are in a major petrochemical development region. They have actively sought out international development and, in fact, they are used as a bit of a model as to how to go about rapid industrial development.

ACTING CHAIR—I have been to Port of Spain, the biggest city—the capital city—in that country. It is not exactly a polluted city. Automatically, when people read that it is 2½ times the per capita of Switzerland, they assume that it is way up there as the second or third—whatever—largest polluter, but that is more because of what it is digging out of the ocean between it and the Venezuelan coast than anything else, is it not? It lies a couple of miles off Venezuela, which is a member of OPEC. In other words, there are a lot of oil deposits in the region in general.

Mr Taylor—It is a major emitter, but emissions and pollution do not actually correspond, and it is probably a pretty good example in comparison. A similar example is the North West Shelf. There are major emissions there, but it is not a polluted area, and the energy that is produced is used around the world.

ACTING CHAIR—That is what I was hoping you were going to lead to as a comparison. It was the submission of the Western Australian government—I note that it was also your submission—that there needs to be some provision for credits for activities which not only generate emissions in Australia but also lead to a reduction in emissions in other countries, particularly non-annex 1 countries to which we are exporting. This is a major point, is it not?

Mr Sashegyi—Absolutely. In our submission, we had four dot points which summarised the position we are putting, and the last point, but it is probably one of the most important, is participation in the Kyoto protocol by developing nations.

Mr BAIRD—I would like to put to you the overall question of responsibility. If you were not in the Western Australian Chamber of Commerce and Industry, but were looking after Australia's environmental issues, what would you do and how would you solve the situation that faces Australia as part of the global scene?

Obviously, if we do not do something globally, we are going to have significant problems in the future. We now know that with some degree of certainty. Responsible nations have come together to try to work out a strategy so that our children and our children's children will not be facing catastrophic climactic conditions. I presume that you assume we have got some responsibility and that, if we look solely at the economic development of our country, our arguments are not very different from those of developing countries. So where do we go? We understand the unique position of Western Australia—that was very well put by the government representatives who appeared here before you.

Mr Taylor—Perhaps I might start off.

ACTING CHAIR—If I could just preface what you are about to say, in your submission you say that Australia could be characterised as a country with a first world living standard and a third world export profile. That might lead in quite nicely to what you are about to say.

Mr Sashegyi—Certainly that is the case for Western Australia, as opposed to Australia—but Australia would be in the same category—if you look at our exports and then look at the exports of developing nations. I think one of the charts that was presented by the WA government delegation showed the main exports from Western Australia and listed the countries that were competing with Western Australia. These were put into two categories: annex 1 countries and developing nations. Just from glancing through the chart before we sat down here, very clearly there were far more developing nations on the list than there were annex 1 countries. So in terms of our export base in Western Australia we are very much like a developing nation.

But to answer your question about what I would do if I were sitting down to look at a problem that needed to be solved and saying what we should be doing, I think, first of all, if I were sitting not just in Australia's shoes but at the UN and were negotiating an agreement that was going to do something real about reducing greenhouse gas emissions, then I would not penalise a country for increasing its emissions if that resulted in a net reduction in emissions overall. That is the first point.

In terms of what Australia and Western Australia should do, I think we should be doing our utmost to ensure that, whatever developments occur in Western Australia and Australia, we produce outputs with the minimum possible greenhouse gas emissions and at the same time take advantage of all those sequestration opportunities and the like within the sort of framework that has been developed in the Kyoto protocol to do something about solving some of our other real environmental problems in Australia. Martin, you have had more time to think now.

Mr Taylor—My response stays the same no matter how much I think about it, because I have been thinking about this since 1988. That was the first time I was required to think about this area. The main approach I would take would be a global one. Every tonne of greenhouse gas emission, regardless of its source, has the same effect, because you have a completely mixed atmosphere. The corollary of that is that every tonne of CO₂ you remove has the same global effect. Any approach therefore has to cover all the sources of greenhouse gas emissions in the world and all the sinks.

The main failing of the Kyoto Protocol and the Australian national approach to the issue is that every condition or action that is being taken is actually cutting away either some of the sources for action or some of the sinks for action, and so you are then concentrated more and more on single sources such as industry emissions or electricity generation and so on. For example, at the international negotiations—and Dr Cox expounded on it quite well—the early statements in the Kyoto Protocol about sinks actually discounted or would not allow the vast majority of Australian sequestration opportunities. It is continually cutting away those options for good, cost-effective emissions reduction.

The other thing that it also fails to recognise is that, no matter what Australia does, we are not going to make one jot of difference to the global scene. If all our emissions stopped tomorrow, those emissions would be taken up by increases in air travel and maritime trade.

Mr BAIRD—So your argument is that we basically—apart from the carbon sequestration and sinks and so on, and being given credits for benefits further down the train—keep on doing what we are doing, with the same industries continuing to expand and CO₂ emissions continuing, without seeing any real responsibility for it?

Mr Sashegyi—No. I would say exactly the opposite.

Mr Taylor—I would say that if a proper global response is in place, Australia would have to compete for the right to emit on the basis of its efficiency and its contribution to the overall package, and I think Australia would be able to compete very well on that basis. But what is actually happening is that the competition is not free and so the market mechanisms are quite restrictive in allowing Australia to compete.

Mr Sashegyi—You are saying that, given the Kyoto Protocol excludes developing nations, what are we going to do? Given that the developing nations are excluded and there is not the opportunity to take a proper global view, does that mean to say that Australia is doing nothing?

Mr BAIRD—No. I am not disagreeing with that. I think they should be included as well. But the way you get at them is somewhat difficult. The point I was making to the people from the Department of Resources and Development was that a list of developing countries would be interesting, because some of the same companies that you have operating here are operating in the developing countries—such as Alcoa, for example. It has several alumina plants in Third World countries and decisions are made in Pittsburgh as to where they are going to source their suppliers from. Perhaps there is a need for companies to be allocated, rather than operating in the global market, because you do not find a whole lot of multinationals in Botswana, for example.

Mr Sashegyi—I think that there are number of companies, and somebody like BP is one that jumps to mind immediately, that have taken a very strong global view on their approach to greenhouse and all matters to do with the environment. They have programs that they put in place internationally regardless of which nation they are in. But that is not true all the time.

ACTING CHAIR—What Mr Baird is driving at is that we should be signing up companies, not countries.

Mr Sashegyi—I understood that. What I wanted to emphasise was that there were a number of good companies. The implication was that they would exploit the opportunities in some of the other nations. There are some other companies that would not perhaps take such a responsible attitude.

Mr BAIRD—Alcoa has got an excellent reputation worldwide for that. But that is looking after their own interests as well.

Mr Sashegyi—One of the things that I did want to stress was that, looking at the take up of the greenhouse challenge list, I certainly believed that there are very real efforts being made by companies in that list to do something about greenhouse gas emissions. The point that we were trying to make earlier—certainly, Martin made it in his opening comments—was that we certainly believe that, even if the Kyoto Protocol or convention is not signed by Australia,

Australian and Western Australian companies will continue to work at reducing their greenhouse gas emissions. The key issue is that they will work at reducing them as a percentage of output. The problem in Western Australia is that we have got a growing economy based on export. Those exports are not being consumed by Western Australians or Australians. They are being consumed elsewhere around the world. If we do not produce them, they are going to be produced elsewhere.

Mr BAIRD—Can you in all seriousness believe that companies are going to achieve on a voluntary—I am a good citizen—basis significant greenhouse emission reductions?

Mr Taylor—Not corporate citizenship; it comes down to dollars. Western Australia is a very expensive area to operate in if you are an energy consumer. There are all sorts of examples on co-generation that are occurring particularly in Kwinana. Companies are finding it financially viable to enter into agreements to use waste feed for the generation of electricity for selling into the grid. That sort of thing improves energy efficiency from 20 per cent up to 38 and 40 per cent in just one go. A lot of those sorts of things are happening. The eco-efficiency agreement that we are looking at is focused very much on those things, on capturing good financial returns for environmentally sound behaviours.

Mr WILKIE—But there is not always going to be the opportunity to make a financial gain from reducing greenhouse in your industry, is there? How do you encourage those people to get on the bandwagon if there is not a series of protocols or something similar in place to get them to do that?

Mr Taylor—Industry would tend to flick that question around and say why ruin the economy—

Mr WILKIE—Why ruin the environment?

Mr Taylor—for no environmental gain.

Mr WILKIE—You have said previously that, for every tonne of CO₂ emitted to the atmosphere, it is an extra tonne. Whether it is produced here or overseas, we need to try and reduce that. Why would we not try and reduce what we can irrespective, if we have that opportunity?

Mr Sashegyi—It is true up to a point. The point of diminishing return is that, if you try to do so much in Western Australia and therefore increase costs to such an extent that the development does not go ahead in Western Australia—and it goes ahead in a Third World country which is not covered by the convention—then the world has not benefited. The greenhouse gas problem is worse, not better. Basically, maintaining the competitiveness of Western Australian industry is essential. If you push it too far, you lose the opportunity.

ACTING CHAIR—What you are saying is that it is countries like Australia and states like Western Australia that can afford to do this whilst another country which is more worried about trying to feed its people cannot afford it.

Mr WILKIE—I have a question along those lines. We have heard from the WA government that significant future development of industry in Western Australia has not been reduced even though Australia is considering ratifying the protocol. You would expect therefore that, if there were developing countries that could take over industry, there would be a lot of industry tending to gear up now to move to those developing countries as opposed to Australia because they do not want us to ratify. What we are getting from the state government is that is not happening. People are still investing here even though there is a potential for us to ratify the agreement. Can you give us some examples of where industry is saying that they do not want to invest in Australia because it is going to cost them too much and they are looking at going offshore? People keep saying that that is what is happening but no-one has been able to demonstrate it.

Mr Sashegyi—It is a strange time to ask that question in Western Australia because we are hopefully coming out of one of the worst slumps in resource development activity that the state has seen. There has really been very little activity over the last two years. The time frame in which projects are developed is increasing. The North West Shelf project, for example, has been given the go-ahead now, just this month, but that has been worked on and thought about for five or six years. We have had a slump, but that has been due to other factors, apart from greenhouse gas concerns, but it is still early days.

Mr BAIRD—From our point of view, we would be interested in the ability to point to how decisions are made. For example, you have to find comparable countries where resources are available. If somebody is going to invest in an alumina plant, they have to go where the bauxite deposits already are, and they are already known. Only a few companies invest in them—one of which is the one that is already here. A prime example is where you are able to point and say, ‘They went to Surinam because they are not a part of the Kyoto Protocol.’ It is not that we do not agree with what you are trying to say. I think it is a real issue for an energy intensive country, a net producing country like Australia and for this state in particular. It is a real issue, but how do we put that together with being good global citizens?

Mr Sashegyi—The very first point is that these decisions take a long time from first thinking about a project to actually putting it in place. Five years is a reasonable period of time for that to occur. I can point to it with an example. These considerations were very real considerations in the location of the Centroleum project in Western Australia. I have not got anything with me obviously now but, looking at the media statements and the sorts of negotiations that occurred between the state government and the federal government with the Centroleum company, those sorts of issues were given a lot of weight and perhaps contributed to the sizeable amount of subsidy that both the state and Commonwealth governments had to offer to the project to get it under way.

Mr BAIRD—Please do not feel that we are attacking you. I used to work for one of the major energy intensive companies here in Western Australia. I reveal that now. Are you aware of any of your members coming to you and saying, ‘Because of the government’s commitment to the Kyoto Protocol, we have problems with our investment here in Western Australia?’

Mr Sashegyi—That was publicly talked about in the lead-up to the decision by Centroleum to go ahead here. Because it has gone ahead and they were seriously looking at Western Australia, we heard about it. The problem is that there may be other developments where people may decide at an early stage not to look at Australia, and we do not even hear about them.

Mr WILKIE—We have been looking at Kyoto for years. We talk about long lead-in times for projects, but Kyoto negotiations have been going on for years and years and years. So people who are potential investors would know that we have been discussing it and looking at it and, in all probability once we have signed it, we are going to ratify it. But it has not seemed to have stopped anyone still investing here.

Mr Sashegyi—There is the North West Shelf project, too.

Mr Taylor—For the North West Shelf project, there is actually a commitment from the federal government that that investment will not be undermined by the government signing the Kyoto Protocol. They have actually ring fenced it and said, ‘We will bear the risk.’

Mr WILKIE—It is not hard when you are exporting most of your product.

Mr Taylor—It is. One project that, again, is significant and there has been no commitment to development is the Gorgon project. The previous minister for resources development put a series of demands on that project that basically have put back the decisions on investment in that project by a number of years.

ACTING CHAIR—I want to move to a couple of things specifically out of your submission, in particular the ‘Why it matters?’ part of your submission on page 17. There are a couple of things there which are worth putting on the record. You say that, essentially, the best outcome for any national government is for every other country except its own to reduce emissions, and essentially no-one wants to be the first to reduce emissions when everybody else does not. Earlier today, the Western Australian government used a terminology that suggested that, because of the way the Kyoto Protocol is currently framed, we are destined to remain a quarry for the world, because to value add to any of the things we pull out of the ground is basically prohibitive. Is that how you see it? Is that where we are heading? Are we going to be restricted unnecessarily, or is that being too alarmist?

Mr Sashegyi—I think we have a history of basically being a quarry. The history with the iron ore industry is not a happy one with the HBI project, which has not won Western Australia any favours with international investors, I would have thought. So I think they are very real concerns. It has been very hard to get a downstream process of hot briquetted iron let alone steel, so I certainly think they are very real issues.

Mr BAIRD—Isn’t that also to do with the trend in developed countries around the world to move steel production to Third World countries where the costs are cheaper? Isn’t that a factor, whether it is the UK, Germany and so on?

Mr Taylor—We have not even moved into steel. The attempts that we have moved into steel in Western Australia have been defeated essentially by energy costs. We supply 20 per cent of the world’s traded alumina. We do not have an aluminium smelter because there is no way that WA’s energy costs can justify the development of an aluminium smelter. Anything that increases those energy costs—and certainly the Kyoto Protocol would; it is essentially an increase in energy cost—would further restrict the ability to downstream process. In contrast, you just have to look at what happened when the natural gas pipeline was put through from Dampier to Kalgoorlie. There was a massive surge in further processing because the energy costs from

using natural gas were significantly lower than the previous alternative, which was basically diesel fired power generation.

ACTING CHAIR—So the suggestion in your submission that, ‘Australia is characterised as a country with a First World living standard and a Third World export profile,’ is pretty well locked in? It is here to stay?

Mr Sashegyi—I think efforts are being made to do something about it—

ACTING CHAIR—But this Kyoto matter is not going to help that cause.

Mr Sashegyi—It is not going to help the cause, but if you were to jump forward, say, 20 years, without doubt, you would see—excluding Kyoto—quite a sophisticated industry there with a lot of interactions and synergies between petrochemical plants, chemical plants of different descriptions, more processing—

ACTING CHAIR—But that is excluding Kyoto. Meanwhile, you have got LNG competitors in Indonesia, Malaysia, Algeria, Qatar and Oman; you have got alumina competitors in Brazil, Guinea and Jamaica; you have got nickel competitors—these are non-annex 1 countries I am talking about—

Senator LUDWIG—Where is Surinam?

ACTING CHAIR—No Surinam, Senator. In nickel, you have got New Caledonia and Indonesia; and in iron ore you have got South Africa, India and Brazil. I cannot see any of them as standout environmentalist countries.

Mr Sashegyi—If we had a negative attitude to things, neither Martin nor I would be in our jobs. We always have a very can-do attitude.

ACTING CHAIR—All right, but Kyoto puts another hand behind the back, doesn’t it?

Mr Sashegyi—It certainly does, yes.

Mr Taylor—It is a significant threat.

ACTING CHAIR—Based on your submission, I must say—I am trying to be impartial here, too.

Senator LUDWIG—I am pleased that you have made that attempt.

ACTING CHAIR—I thought I should—from the chair, especially. There is one other matter in your submission which I have to say that I had not focused in on. Of the annex 1 countries which are in the OECD, Australia has, over the past 20 years, experienced the fastest population growth. That means that on the ‘1990 business as usual’ benchmark, we have other pressures on us as far as coping with the reduction of greenhouse gas emissions.

Mr Taylor—Yes, and the successful arguing of that is one of the reasons why we got 108 per cent and Europe got 95 per cent, but it is not enough in terms of matching that growth. Some of the major countries in Europe actually have negative population growth.

ACTING CHAIR—But maintain a higher benchmark for polluting purposes, even though their populations are declining.

Mr Taylor—Yes.

Mr Sashegyi—The other key factor, of course, in the European countries and some others who have been perhaps more readily wanting to take up the Kyoto Protocol is the closing down of a lot of the old, very inefficient, Eastern European type industries. This has really created the opportunity for the Europeans to be able to take a strong pro-Kyoto attitude. If it was not for that and, say, in the UK, with their coal industry—and the other key issue is the great reduction in the predominance of coal as the fuel source for electricity—then I think that the Europeans and the United Kingdom as a case in point would also be having problems meeting the Kyoto Protocol targets, albeit with a much lower population growth.

ACTING CHAIR—So the bottom line in your position is that you would be pushing for a continuation of this ‘Australia is different’ case, and that our efforts to do things in a far more greenhouse-sensitive, efficient way is benefiting the planet as a whole but is not being rewarded under the protocol as it exists?

Mr Sashegyi—Yes.

Mr Taylor—Yes, that sums it up.

ACTING CHAIR—Thank you very much for being here today and for the quality of your submission.

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

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

Committee adjourned at 4.04 p.m.