HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON ENVIRONMENT, RECREATION AND THE ARTS

Reference: Trading in greenhouse gas emissions

MELBOURNE

Wednesday, 20 May 1998

OFFICIAL HANSARD REPORT

CANBERRA

HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON THE ENVIRONMENT,
RECREATION AND THE ARTS

Members

Mr Causley (Chair)

Mr Jenkins (Deputy Chair)

Mr Anthony	Miss Jackie Kelly
Mr Billson	Mr Kerr
Mr Robert Brown	Dr Lawrence
Mr Eoin Cameron	Mr McDougall
Mr Entsch	Mr Mossfield
Mr Hockey	Dr Southcott

The committee will inquire into the regulatory arrangements that would need to be put in place to support a market in greenhouse gas emissions including:

mechanisms for measuring, verifying and monitoring emissions and the compliance with contracted arrangements;

mechanisms to integrate emissions trading with the development of carbon sinks (such as timber plantations, gas aquifer reinjection, soil rehabilitation etc), including the science, measurement and security of such arrangements;

the allocation of the right to emit greenhouse gases;

regulatory mechanisms to support a national market and potentially an international market in emissions trading;

possible emission traders, administration and transaction costs;

roles and responsibilities of governments and other stakeholders; and

the impact of emission trading on the environment and industry and the economic and social welfare of the Australian community.

WITNESSES

HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON ENVIRONMENT, RECREATION AND THE ARTS

Trading in greenhouse gas emissions

MELBOURNE

Wednesday, 20 May 1998

Present

Mr Causley (Chair)

Mr McDougall (Acting Chair)

Mr Billson
Mr Robert Brown
Mr Eoin Cameron
Mr Jenkins
Mr Kerr

Committee met at 9.06 a.m.

Mr McDougall took the chair.

ACTING CHAIR (Mr McDougall)—Ladies and gentlemen, I declare open this public hearing. This inquiry was referred to this committee at the end of October last year by the Minister for the Environment, Senator Hill. To date, 65 submissions have been received and the committee is now halfway through its program of public hearings. We went to Sydney and Brisbane earlier this month. Further hearings are planned for Canberra through until July.

The committee is considering greenhouse gas emission trading in the context of Australia's commitment to emission reduction and the ongoing discussions about an international trading scheme, which started after the Kyoto Protocol was negotiated last December. Setting up a domestic trading scheme could contribute to reducing the flow of emissions in line with commitments. In addition, if that scheme can be integrated easily with the international scheme, it could be to Australia's economic advantage.

This inquiry is focusing on the arrangements that should be put in place for the domestic trading scheme. As the committee collects information about the best sorts of schemes we have, it will be looking for mechanisms that will ensure that emission trading contributes to emission reduction as equitably, effectively and efficiently as possible. It will be looking for ways of providing maximum certainty at minimum cost for the environment and the emission traders.

[9.07 a.m.]

HOULIHAN, Mr John Christopher, Manager, Private Forestry Program, Department of Natural Resources and Environment, 13th Floor, 8 Nicholson St, East Melbourne, Victoria 3002

LOVE, Mr Kevin James, Assistant Secretary, Resources and Infrastructure Branch, Department of Premier and Cabinet, Level 2, 1 Treasury Place, East Melbourne, Victoria

NAUGHTON, Mr Peter, Manager, Market Development, Energy Projects Division, Department of Treasury and Finance, Level 3, 35 Spring Street, Melbourne, Victoria 3000

STEED, Dr Graham Robert, Manager, Farming Systems and Business Management, Agriculture Victoria, RMB 1145, Rutherglen, Victoria 3685

ACTING CHAIR—Welcome. The committee's proceedings are recognised as proceedings of the parliament and warrant the same respect that proceedings in the House of Representatives demand. Witnesses are protected by parliamentary privilege in respect to the evidence they give before the committee. You will not be asked to take an oath or to make an affirmation. However, you are reminded that false evidence given to a parliamentary committee may be regarded as a contempt of the parliament. The committee prefers that all evidence be given in public, but should you at any stage wish to give evidence in private, you may ask to do so and the committee will give consideration to your request. We have received your submission and have authorised its publication. Do you wish to propose any changes to that submission?

Mr Love—No.

ACTING CHAIR—Before we begin our questions, would one of you like to make a brief opening statement?

Mr Love—Thank you. I would like to make the opening statement. I have brought with me some colleagues who can provide detail for any questions on specific issues. Mr Naughton is a member of the greenhouse energy group that is looking at energy specific measures under the greenhouse strategy. At the request of the committee, we have also brought along two experts in carbon sinks. Dr Steed, who has expertise in soil chemistry and dealing with farming systems, can answer questions about carbon sinks in agriculture. Mr Houlihan, who is responsible for our private forestry strategy, can answer questions about carbon sinks in forestry.

We welcome the opportunity to appear before you today to speak to our submission. The Victorian government has been quite active over a number of years in dealing

with strategies for the greenhouse effect and was quite supportive of the Commonwealth government in its negotiations at Kyoto. That support included sending a representative and a senior minister to support the delegation.

At Kyoto the Commonwealth government successfully negotiated an effective and equitable agreement. We now need to demonstrate good faith and commitment in addressing climate change to meet the target we were given at that conference. We will all need to play our part within the federal policy principles. I welcome the introductory remarks because those policy principles seem to be quite consistent with our submission.

I just reiterate our principles that we are working towards. Firstly, we feel it is important that the measures are consistent with the national energy market reform program, that they produce equitable distribution of impacts across regions, and that they cause minimum cost and disruption to the industry. It is important that any measures that are developed are tested against those principles.

We have a strong preference for market based mechanisms, such as emissions trading, rather than command and control regulation. As a general principle, we favour them, but we would request that a fundamental question is asked and answered first before market based mechanisms are introduced.

We should not assume that a trading system per se is needed without testing that assumption first. We need to work out whether the existing and proposed no regrets measures are sufficient to meet Australia's current greenhouse targets. Then we need to analyse all the options for permits trading schemes, including their cost and benefits relative to each other and to other possible mechanisms. We are quite concerned that some trading schemes could be developed that have very large administrative transactions costs and serve to not achieve much of an outcome but introduce a significant cost to the community. We want to ensure that any domestic greenhouse trading scheme is efficient and effective, as has been mentioned in the introduction by the acting chairman, in achieving the desired outcome with as minimal disruption as possible.

There are some substantial practical problems we see in implementing an emissions trading scheme for greenhouse gas emissions; for example, how would we ensure the integrity of the permit system? Defining the property right and then enabling people to enforce their property right is going to be a key fundamental in this consideration. We need to ask how the initial allocation of emissions permits will relate to the ultimate target, and how the need to provide opportunity for industry to phase in emission reductions will be accommodated. If agricultural land use changes and forestry sectors are included, in particular in an offset program that recognises the potential for carbon sinks in those areas, how are the uncertainties in changing methodologies for estimating emissions from these sectors to be dealt with?

So there are a number of questions. We have raised a series of questions in our submission and we will be interested in discussing those with the committee at this time. We feel that this inquiry could provide a valuable basis for further policy development in this area and we thank you for inviting us to participate. We would welcome any questions.

ACTING CHAIR—Thank you, Mr Love. Our experience to date is that we are all looking for answers and for information backwards and forwards from each other, so that we can hopefully come to an agreed position. I did notice that you made the comment that we should try to hurriedly introduce some sort of scheme, and you suggested that around 2005 might be an appropriate time. Have you got any reason for setting a time of 2005? What has got you to that point?

Mr Naughton—Perhaps I can answer that, Mr Acting Chairman. There is a presumption at the moment among people that have examined the level of greenhouse gas emissions in Australia that, with the three energy measures that were announced by the Commonwealth in the climate change statement of November 1997, it may be possible for Australia to reach its target of 108 per cent level of emission above 1990, the Kyoto target, without further additional measures by a benchmark period of 2008-2012. If further targets are agreed by the United Nations process, they will be available for consideration by about the middle of the next decade.

If an emissions trading system is needed to implement gas reduction levels beyond the current target, which it may be possible to meet under existing mechanisms, we will know by about the middle of the next decade. On that basis, we would think that it would not be sensible to introduce a trading permit system until at least the beginning of the middle of the next decade.

ACTING CHAIR—While we are looking predominantly at a domestic system, obviously the international system must come into the question. We have had some evidence to date that there has been some activity, particularly from the US and Japan, in relation to purchasing of emissions rights—particularly with Russia, and with Japan working in China. If a trading program were to encompass international and domestic overlapping each other, is the 2005 target too long before we set up a regime and is there therefore the potential to miss out on that ability? Have you any comments to make about that initial reaction from the Americans and the Japanese in the international market?

Mr Love—There is some opportunistic buying of retired power generation capacity in Russia. It will be an interesting question whether that is approved in the international negotiations or not, because in fact a lot of that capacity has not been used for the past few years. With the current economic growth forecast in Russia, you would question whether it will actually be pumping out further greenhouse gases in the near future. To buy what are effectively retired emissions at the moment may be a good short-term

strategy for people, but whether that passes muster in the international negotiations is another matter.

I suppose the fundamental question in the international arena is whether the trade is going to be between sovereign states or between individual companies. If it is between individual companies, then a domestic scheme may not be particularly relevant anyway. If it is between sovereign states, then obviously we need to participate in trying to guide the development of that domestic trading scheme, and that is one of the rationales for actually doing this policy work now.

It may well be that we have to move quickly from 2005; but what we are saying is that, in the context of our domestic targets, the need for extra measures over and above measures that the Commonwealth has already introduced may not be an urgent need. If that is the case, we may as well try to get the scheme right and test it first, rather than rush into something that may prove to be dysfunctional in the future.

ACTING CHAIR—I will ask one more question before passing to my colleagues. Of the measured CO_2 emissions in Victoria at the moment, what are the emissions of the electricity industry, as a percentage of the total?

Mr Love—We estimate that it is 50 per cent. The national inventory basically looks at a national aggregation rather than a state-wide aggregation. We have to recognise now that electricity flows across borders, and that electricity generated in Victoria may in fact be used in New South Wales and, potentially, in the future, in other states. So we probably need to look at these things on a national basis rather than on a state-wide basis. But the estimate in the submission is 50 per cent.

Mr KERR—Let us test some of the assumptions that perhaps you are operating on and see how they apply, as against what I suspect to be the reality. One is that the 108 per cent that was agreed at Kyoto also included the opportunity to take into account emissions based on land use change. I am not sure whether you are aware of some recently published material that suggests that the advantage that Australia might gain out of land use change has been overestimated.

Some of the material that was published by Grahame Farquhar and others, who were the scientific advisers to Australia, suggests that there will be some significant debate at the Rio conference around the parameters of those numbers. I think you would probably be also aware that there is some sentiment that Australia got off pretty lightly at Kyoto. Therefore, to the extent that there is any sentiment, it will be towards taking a fairly tough attitude in relation to what would be seen as a windfall gain. In terms of your starting position that we have a fairly soft target, have you taken that range of matters into account?

Mr Love—In our considerations, we are certainly factoring in a range of outcomes as far as land use change is concerned. Whilst the argument internationally is that the science is uncertain, my own feeling is that the science is probably a little bit more certain than has been recognised by the international scientific community. When you read down into the documents that the scientific community produces, there is more depth of information than actually comes through in the summary, because the summary is a negotiated document.

We have a very long history of measurements in things like soil carbon and so on in Victoria. Therefore, we have identified that there is potential for carbon sinks in that sort of area. We have also got information about the potential for uptake of carbon dioxide in forestry and those sorts of areas and also about the potential for land to be planted back into forestry, if the market conditions are right.

Whilst there may be an argument that there is some uncertainty in the land use area, you would have to contrast that with the level of uncertainty about the greenhouse gas emission predictions and the impacts predictions themselves. If people start running that uncertainty argument in the international arena, they had better start also recognising the uncertainties of this whole debate.

Mr KERR—All I am saying to you is that Rio will determine some of the outstanding issues in relation to how those calculations will take place. I suppose we will know better after that is established.

Mr Love—Yes.

Mr KERR—I guess another starting point question is this: if we assume that the next budget period for greenhouse gas reductions is likely to be at least that tough, or tougher, would it not be wise to start putting in place the economic instruments in Australia that would enable us to meet some kind of continuing greenhouse gas reduction program after the first budget period expires? It would seem to me that if you are seeking to start to influence economic decision making in Australia, the longer the lead time you give the better. It perhaps enables a more gentle introduction of measures rather than seeking, say in the last years of a budget period, to move to negotiations to try to make sharp changes in social and economic policy. It seems to me that if there is an advantage in the flexibility we have now, it can only be an advantage if we put in place mechanisms that do not rely too much on serendipity to meet the next set of outcomes which are likely to be significantly more constrained.

Mr Love—I agree with that. I suppose what we are saying is that we have got time both for good policy development and testing of the policy instrument and then a staged introduction of it rather than reacting next year and saying we must introduce a scheme by 1 June 2000, for example. I think we are coming from the same perspective, but what we

are saying is ask and answer the questions in framing the policy instrument first, before trying to phase it in, rather than come in with something that is administratively onerous that does not meet the outcomes that you are trying to achieve and which may, in fact, lead to some perverse outcomes.

Mr KERR—Assume that one is seeking to attain two objectives. One objective is to get the policy framework as foresightful as possible but at the same time put in place measures which give lead times and give, in a sense, signals to the market as to how to operate. I am wondering why the prescription that you have put forward suggests that we look to a 2005 time, seven years down the track, which seems an awful long time to undertake to think things through.

Mr Love—What we said was that it would be preferable. We are not being dogmatic about a particular date but what we are saying is engage in the policy debate, get the policy mix right, test the assumptions, test the instrument, and do that before introducing it rather than rush into something that may not work in the way it was intended.

Mr KERR—I would not have thought that seven years was a rush.

Mr Love—Government processes run—

Mr KERR—Frankly, I would have thought it was what most people would call 'dragging the feet'. If you are seeking to give economic signals, if you are seeking to establish a trading system, if you are going to integrate things like land use mechanisms and seek to encourage trading which would, for example, change the economics of tree planting, or do something to encourage shifts in energy sources and the like, should you not be moving now?

What I am saying is that the first budget reporting period is 2008-12. I think by 2005 the benchmarks for the next budget reporting period are going to be set. It seems to me that those lead times give us something, in a sense, to work with. I am wondering at the projections which suggest that business as usual will comply with the 2008 number. It does not seem to me that anybody has actually put forward those projections in a credible way yet.

Mr Love—A gap has been identified between business as usual, the Commonwealth measures, and the land use. That is why we are considering other groups' measures and some other measures. We need to look at those measures and also market based measures and see what is the best way of achieving the outcomes. All we are cautioning is that we try to get the policy instrument right first and then introduce it and, as you say, phase it in if we need to, rather than jump in feet first and find that we have the wrong policy instrument. That is all we are saying. The 2005 date is an indication of a preferable

time frame rather than us being dogmatic about a time frame. I think we are actually agreeing on the issue.

ACTING CHAIR—It is very pleasing to see that we have two gentlemen here today from agriculture. Obviously, if we are going towards setting a date and putting it into position we will have to know some facts in relation to the ability to measure. There seems to be some uncertainties associated with estimating emissions from land use and the forestry sector, and measuring the carbon content in the soil in a plantation as opposed to a natural forest. Could we have some comments from the scientific end of the argument as to where we are at in that measuring process and when will that be available so that we would know what the absorption rate would be in a sink and be able to measure it?

Dr Steed—The scientific community in my department and in wider Australia is confident about measuring soil carbon. It is a difficult measurement. It is not as simple as measuring other soil factors like phosphorus, nitrogen, or whatever it might be. There has been a lot of work done on soil carbon in the last 20 years or more—not with the greenhouse effect necessarily in mind but with things like reduced erosion and that sort of thing. We are confident that the soil carbon measurements we get reflect different land use practices. For example, when we measure soil carbon under improved pasture it is higher than when we measure it under a cropping system that relies on cultivation and stubble burning—and that makes sense.

ACTING CHAIR—So you feel that you have the technology at the moment so that if a sink is created in a plantation form, you can measure the carbon absorption by that sink in a fairly correct way?

Dr Steed—Yes, I would be confident that we could measure the before and after effects of a treatment on soil carbon and relate that back to the sink you are talking about.

Mr BILLSON—John, congratulations on all you are doing with the private forestry. With the private forestry rights tool available in Victoria, are investors showing an interest in the potential new value resulting from investing in plantations that are potentially emission credits, or are they talking about it and not necessarily having that reflected in their investment decisions at this time?

Mr Houlihan—In terms of the forest rights legislation—and I am not sure whether everyone is aware of that; perhaps I need to explain it first. Under the national forest policy statement there was a commitment given in terms of trying to get a clear separation between the rights related to trees which would normally be a chattel on land and the land itself. The Victorian government has set about enshrining legislation called the Forest Rights Act 1996.

We have had only limited publicity generated on that particular act. The uptake has been fairly slow. I believe, following discussions with the Land Titles Office, that around

40 people have taken up that option and they have largely been related to some more recent developments in the south-west of the state with Oji, Nissho Iwai and Toppan Printings consortium down there in generating the blue gum plantations.

Mr BILLSON—So that is forestry for the fibre, not for the emission?

Mr Houlihan—That is right, just for the fibre at the present time. We have an investment banker, Lloyd James, who is also on our private forestry council. He has had some inquiries from people on that issue, particularly in that region. We have been furnishing him with some details that we have been able to get out of the workbook, which I am sure members would be aware of. There is a more recent publication from the Australian Forest Growers which gives an indication of the level of carbon dioxide fixing and carbon fixing that would result from trees growing in those particular locations.

Mr BILLSON—Would you imagine that the sequestration value of a plantation—however we want to define it; that the ownership could vest in the investor or the land holder—would be a very real part of the negotiations about annuity payments or yield shares for the use of the land?

Mr Houlihan—It would have to be part of the negotiations and working for something that was envisaged at the time that forestry rights were put in place. But, in terms of having the trees under separate ownership, I would imagine that the rights would lie with the person who owned the trees.

Mr BILLSON—In the Victorian government submission they are talking about trade-offs using those sequestration measures as a rebate as distinct from a right in its own right. Is that something that you are still thinking through, or is that the uncertainty surrounding the science? Is that what is behind that argument?

Mr Naughton—I think it is fair to say that we have not thought through a final position on that. Sequestration issues are only just beginning to be analysed and discussed and, certainly, there is no final position.

Mr BILLSON—One of the reasons for the question is that in other submissions to the committee we have had differing points of view; some arguing that where the science is not crystal clear and not certain, then there would be a discounted value that you could offset against an emissions permit, perhaps if you were a generator or something of that kind, as distinct from people who might trade in the permits—the greenhouse emissions Soroses of the next generation—who might go along on these sorts of things and spec on them.

An idea that I have been very keen to push is having a regulatory unit set up in Melbourne that would not only manage the domestic scene but be a UN agency for the region for the clean development mechanism and verification of performances against the

protocol. Is that something that the Victorian government is thinking of, or do I need to talk to someone more about that at another point in time?

Mr Love—There are two answers to that. Firstly, we would welcome any agency that was set up in Melbourne, especially an international agency. Melbourne is a very good place to do business and to set up these international bodies. However, one of our concerns is the regulatory costs and the administrative costs of any of these systems. There is a whole range of ways of implementing these things from a very heavy regulatory emphasis to letting the market work. There are bodies like the Australian Stock Exchange and so on that are looking at offering these sorts of instruments themselves. It may well be that that is the way to do it.

Mr KERR—I would like to ask you something in terms of this issue you raised about timing. Some of the large companies that I have had discussions with have said to me, 'Should we start now in making the significant changes that we know we can in terms of our energy policy? Should we be moving now, or should we delay until such time as we will get credit for the policy we put in place? In other words, if we move now, we may not be in a position where we can market the savings that we make. But if we delay, we will be in a position to actually have something that we can sell.'

It seems almost counter-intuitive that people would not be doing things which are economically sensible in the present environment but, nonetheless, if they see that there is a potentially greater economic value, and if they can market the credits they have achieved in a potentially tradable system that will emerge in the future, they may hold off. So, in a sense, we may have this storage of pent-up opportunity that is not being taken because people are delaying the day of implementation until they can actually get into these new market systems. In terms of thinking through of how it would establish you, have you taken that kind of problem into account?

Mr Love—I suppose that would be one issue you would need to take into account in determining the timing. But you would have to test that that was a real effect.

Mr KERR—A major retailer has come to me and said that they are not making boardroom decisions now because they are waiting to know what policy responses will emerge from government.

Mr Love—There is another argument: if you can actually show your credentials, you can have voluntary mechanisms to achieve the same outcomes and you may head off quite onerous regulatory mechanisms. From a business strategy perspective, I think it is always better for business to take a pro-active strategy and show that they can actually do and achieve things on their own rather than have government step in and tell them what to do.

Mr BILLSON—Just picking up the theme we were on before about the issue of regulatory effort, obviously we are all keen to see the costs minimised as much as they can be. If this is going to have teeth, you have talked about the sulfur dioxide model where the penalties for non-performance are very onerous and very punitive, and I suspect action being taken against a non-performing party, whether it be a nation or an enterprise within it, would be covered by a certain amount of risk anyway. Do you see some tensions between a desire to keep it a light-handed regime and an effort to get people to genuinely comply with an emissions framework that still has some lack of credibility in the eyes of some?

Mr Love—The bottom line is that if you do have a tradable permit system that is worth something, then the owners of those property rights are going to insist that they have an exercisable right over those property rights, and they will require that that is underpinned. That is the reality. The question is: how do you do that? Do you do it in a way that involves government in a very strong interventionist approach, or does it involve the market mechanism in some way?

If we use the Australian Stock Exchange example of before, you have listing rules and those sorts of things that can be used as disciplines in that sort of scenario. It is a matter of a preference for non-intervention rather than saying that there will not be any of those things.

Mr BILLSON—We have had a number of submissions encouraging early action, but the Victorian one differs in that respect. Some of the questions of my colleague Mr Kerr touched on some of those issues. In relation to the issue of having an early signal given about permits that had, say, discounted over time to bring us in line with the accounting period obligations, that would provide some certainty and signal and would let people know where they stand so that some investment decisions could be made such as sequestration investments or shopping offshore, is that something that would have some appeal to you as a middle ground?

Mr Love—As part of the overall policy development—but that is an issue that needs to be dealt with, and if it can be shown that that is the most effective way of achieving the outcomes we are striving for, we would certainly be interested in supporting that.

Mr ROBERT BROWN—There are a couple of issues I want to pursue. Mr Love, in your submission you have raised the question—and this has been canvassed as well this morning—as to whether or not the introduction of some type of emission trading arrangement will be necessary. When you raise a question about the necessity of it, is that an acknowledgment of the softness of emission target requirements that have been adopted so far? You say as well that those emission trading arrangements may not be necessary until more stringent requirements are introduced under FCCC. Is it simply that Australia finds itself in a soft position as far as this is concerned at the present time?

Mr Love—I do not think Australia finds itself in a soft position at all. I think there are going to be some hard decisions to be made. I think some of the proposed measures at the moment may actually have outcomes that are prejudicial to the economy, so I do not think that we are in a soft situation at all. What we are saying, though, is that if we are introducing a suite of measures and then also looking at some tradable, market based measures, do we need to have both and are we going to achieve enough with the first set of measures to mean that we have got time to work up the market based measures in a considered way?

I do not think it is a soft target at all. I think there are going to be some real downside costs to the Australian community from having to accept this international benchmark. It may sound as though we have got off lightly, and we certainly got off better than we expected to, but it is still going to introduce cost into the community and some dislocation in the community.

Mr ROBERT BROWN—Why, then, do you specifically refer to the possibility of more stringent FCCC requirements being introduced, thus making it necessary for Australia to adopt some type of emission trading arrangements?

Mr Love—Because the land use clearing part of the agreement provides us with a window of opportunity to adjust using those measures, which probably will not exist post the 2010 period and we will have to introduce other measures at that point. This sort of scheme is another measure.

Mr ROBERT BROWN—While they may not be necessary at this stage, do you see any significant level of desirability about it to the extent that an appropriate exchange marketing mechanism would be available to introduce greater flexibility into the total target objectives and to provide at least some opportunity for those who are unable to reach their emission reduction targets to in effect be provided with a let-out through the emission trading arrangements?

Mr Love—We have already raised the issue of offsets, and even with some of the other measures we are arguing that there may well be ways of offsetting the ability not to be able to comply with a particular measure by enhancing sinks, for example. So we do see flexibility as an important part of this. As I said before, developing up a policy and trying to get an effective market based measure is a good thing to do and we would encourage people to consider doing that. But let's get it right—that is all we are saying. Let's get it right and, as Mr Kerr said, we have also got time to phase it in. I think we are all agreeing with that.

All we are cautioning is: let's ask the fundamental questions first. Is it needed? If we get over that particular hurdle, then what is the best way of introducing it that provides equitable impacts, is efficient and has minimal administrative costs?

Mr ROBERT BROWN—Is it objectively desirable that we should be in a position now where we find it necessary?

Mr Love—I am sorry?

Mr ROBERT BROWN—We have raised the question as to whether or not the introduction of an arrangement of that kind will be necessary. You say it may not be necessary until more stringent requirements are introduced under FCCC. Presumably, then, if the requirements are stringent or have an appropriate level of stringency, some type of emission trading arrangements will be necessary. Wouldn't it be better for us to find ourselves in that position rather than in a position where we acknowledge that at this stage they are probably not necessary?

Mr Love—It might be better for us to have emissions trading and nothing else: do nothing else but just have a market based mechanism where people emitting greenhouse gases do so under some sort of tradable permit arrangement. That might be the only thing we need to do. But if it is, let's identify that. Let's test whether the market based mechanism is a desirable thing to have and then work out the best way of achieving it, rather than rushing in and saying, 'Yes, we must have it and let's do it this way.'

Mr KERR—I would like to ask you a practical question. When you say, 'Let's test it,' I wonder what you mean, because most of the economic literature says that market based mechanisms are the most effective way of giving economic advantage to shifts in energy utilisation, say, in sulfur dioxide in the United States—of shifting the dynamics; that it is a better way than command and control. I think your submission says that. I am wondering what you mean by testing, because the theoretical literature is strong on this. How would you test something without doing it? I just wonder what you actually mean there.

Mr Love—Basically what we are saying is that we need to look at what the impact on the economy is of various instruments and whether they actually provide a net benefit or a net cost. One of the important considerations in that will be the administrative costs of doing it. If this introduces large transaction costs, large administrative costs and large compliance costs, then we are actually going to have a perverse outcome rather than a positive outcome. We are saying, 'Let's have a look at that very closely in working these things out.' We have been trying to make some suggestions. We are positively embracing market based mechanisms, but what we are saying is, 'Make sure that they are effective and efficient mechanisms.' The acting chairman in his introduction said exactly the same thing. So, once again, I think we are agreeing.

Mr EOIN CAMERON—Mr Houlihan, is your Department of Natural Resources and Environment roughly equivalent to the Department of Conservation and Land Management in Western Australia?

Mr Houlihan—Aspects of it are. We had an amalgamation two years ago—we had a conservation and an environment department and we also had the agriculture department.

Mr EOIN CAMERON—You look after the private forestry?

Mr Houlihan—The private forestry component is in the department, as are the native forests on crown land.

Mr EOIN CAMERON—Did you have a conference here recently—within the last fortnight or so—to do with private forestry?

Mr Houlihan—There were two conferences: one was with local government, in Canberra last week; and there was one yesterday with the forests and paper interests—it was based at the Centra for the last two days.

Mr EOIN CAMERON—Is your department pretty proactive in the private forestry thing in Victoria?

Mr Houlihan—In the context of Australia we are really in the role of facilitation and development of effective policy and information. It is quite different from what it would be with New South Wales or Western Australia, where they are more proactive in terms of project teams and attracting venture capital into those arrangements. Our plantation estate in Victoria is being managed by the Victorian Plantations Corporation, so it is at arm's length at the moment as a government business enterprise. We believe it is shortly to be privatised.

Mr EOIN CAMERON—I was going to ask if it was expanding or contracting. It is about to contract very suddenly?

Mr Houlihan—In terms of the whole of government interest, yes.

Mr KERR—In your submission you raised this question of allocation of rights to emit. You raised issues that needed to be addressed and I think they are issues that we all are sort of struggling with at the moment. One of them was the means by which they are allocated—free allocation or auctioning—and the timing of those allocations and whether it would be by staggered allocations or it would be across economy allocations. Have you a view as to how that should be set or are you just saying these are issues that we are all struggling with at the present time?

Mr Love—They are issues everyone is struggling with. We have not done any substantial work. I think the extra eight per cent emission should be allocated to Victoria and then we can auction them off.

Mr BILLSON—Just on the economic opportunity, the transaction cost and the risks that you speak of, do you view those in proportion to the opportunities that are there with the technology of some of the generation sector, for instance, in Victoria and the manufacturing sector that could be shared in developing countries and earn quite substantial new values for those people who are doing that work?

Mr Love—There are some economic opportunities. The way that the current agreement is structured, there are not many non-annexure 1 countries that have got much incentive to become involved in this sort of area, the greenhouse area. We have got opportunities of, say, selling improved brown coal burning technology to other brown coal using nations. We do have those opportunities and they can be looked at. The major focus of that sort of work will be to get Victorian industry more efficient, I think, for other export opportunities in the future.

Mr BILLSON—On a related issue, taking aluminium for example, major competitors will be non-annexure 1 countries. Are you imagining that products produced in non-annexure 1 countries coming into the Kyoto world would need to have some climate compliance treatment to them, so that there is not a huge economic advantage to those outside annexure 1?

Mr Love—It was an issue that Australia raised during the negotiations—that in fact some activity undertaken in Australia may have a better global impact and allow that activity to be undertaken elsewhere in the world. I think that is a major issue that still has not been faced by the international community.

Any sort of fine or a penalty in that term that you speak of would have to be worked through the World Trade Organisation, because it could be used quite dramatically by more protectionist countries than Australia as a protectionist mechanism, rather than just reflecting the true environmental cost of what has been done.

ACTING CHAIR—Just on the other half of Mr Billson's question, has anyone given any thought to whether it is possible under the WTO or GATT arrangements to disaggregate out or, in other words, remit the equivalent of a carbon tax component of a trading regime or whatever for product for export to countries which are not operating under the same parameters? So you take that out of the export product. In other words, you operate a scheme which through either a direct or indirect mechanism has an equalisation factor in it. I do not know how difficult that would be or whether it is just crazy but, at least in a theoretical construct, you can imagine that that may have some utility if it was legal.

Mr Naughton—I think that is actually a major issue for the international trading system if one does get off the ground. One of the major issues faced by Australia is that we do export a number of products which are energy intensive in production and countries to which they are sold would essentially get a free ride if there were not some offset. That

raises questions of transfer of wealth and whatever between countries within the international trading system.

I think some academics of the Brookings Institution and of the ANU have already drawn attention to the fact that those substantial transfers of wealth through an international trading permit system could have substantial economic shock characteristics, so these issues have to be thought through very carefully. Aluminium is the prime example. Australia would have to press very strongly for offsets in an international trading system otherwise we are carrying the burden for other users.

Mr BILLSON—Cement is another one.

Mr Naughton—Exactly.

Mr BILLSON—We heard about this in some other hearings where the importer might have to acquire an emissions permit to a value to reflect that cost structure and bring it into the climate compliant world with some of the things we have been chewing around. But we had, like yourselves, a lot of questions and a lot of ideas but no clear outcome then.

Mr Naughton—There is substantial potential at the moment for a free-riding problem to arise in an international system.

ACTING CHAIR—That probably brings me to a question that has got quite a few parts to it. Should the permits, if issued both domestically and internationally, be free of charge or should they be done by an auction? Should we be looking at giving permits to an industry sector or an individual company within an industry sector? If we are going to issue them in perpetuity—which I think you are saying or you are putting up as a possibility—how do you put a mechanism in to change the face value as a reward if they improve their technology which reduces their impact in relation to the production of CO_2?

Mr Love—I could give an example that Mr Causley is probably well aware of and that is the salt disposal entitlements that are in place in the Murray-Darling Basin. The initial entitlements were basically provided to Victoria and New South Wales in recognition of a contribution for reducing salinity in the Murray. They provided a pool of entitlements that are attached to irrigation water and the existing property right, basically, had a salt disposal entitlement attached to it, but there were new permits actually issued. They were done through an auction system and there was a value ascribed to those through an auction system, which has now placed a dollar value on those rights. The existing entitlement, basically, was allocated with the basic property right but the new entitlement was put to auction and there was a value ascribed to it. It is a model that is worth looking at because it is actually a model of an environmental property right that is working in practice and where people make decisions about things like salt disposal into the Murray based on a property right that has been established.

Mr KERR—One of the problems with permits is that I think if we issued a permit at the moment for all existing use and maintained it, we probably would not meet the 108 deadline. In other words, I think there needs to be some further actions to accommodate that reduction. Has there been any thought given to whether you could actually have an allocation which has a withdrawal? In other words, you allocate, either by purchase, auction or by free allocation, a certain benchmark quota where over a period of 10 years—a budget period—the worth of each permit is reduced by 10 per cent or something so that there is no shock of the sudden reduction, but you recognise that the object is to have a long-term reduction in emissions rather than rely on other mechanisms to bring this into effect.

Mr Love—We certainly have not given any consideration to it. But, once again, it is something that should be on the table in the policy development.

ACTING CHAIR—Thank you, gentlemen. Thank you to the Victorian government for your participation today. I think, as with all the other hearings so far and all the other evidence given, all you have done is put up more questions. But we appreciate that because that is part of the reason for this inquiry. I thank you all for your participation today.

Proceedings suspended from 10.05 a.m. to 10.15 a.m.

BRAZZALE, Mr Riccardo, Executive Director, Australian Cogeneration Association, 380 St Kilda Road, Melbourne, Victoria 3001

CHAIR—Welcome. We have received a submission from you and have authorised its publication. Do you wish to propose any changes to your submission?

Mr Brazzale—No, I do not.

CHAIR—Would you like to make a brief opening statement?

Mr Brazzale—I would. I have some copies of my statement here, together with a couple of press releases from the Queensland government. Our association believes there are compelling reasons to introduce a trading scheme now. There are three reasons for that. Firstly, we have some grave concerns as to whether the existing measures can deliver the emission reductions that the Commonwealth government is seeking. That is largely driven by some of the recent announcements on new coal-fired generation in Queensland—I have attached details in two press releases. Over 260 megawatts of coal plant have been committed and a significant amount of transmission infrastructure as well. In other words, the reduction in emissions that have been expected from a reduced emission intensity of electricity generation just is not happening because investment on the ground is not in low emission generation like cogeneration or renewables; it continues to be in coal-fired generation.

Secondly, I reinforce the point we made in our submission that the existing measures, particularly in the electricity sector—the two per cent renewables and the generator efficiency standards—will be less effective because of that. We will have 3,000 megawatts of plant that has come in before the efficiency measures are implemented. We are still doing some work on the cost of the renewables initiative, but it is likely to be in the order of $2 a megawatt hour. That works out to an emission abatement cost of $100 a tonne. So again, we would say that there are much cheaper ways to reduce carbon dioxide emissions than the ones proposed.

The final point is that, given that there is an international commitment to an emissions trading scheme, end-use customers and emitters of greenhouse gases will be less likely to implement voluntary measures if they know that an emissions trading scheme is forthcoming. Why would you bother investing now, when you may have lower initial allocation of permits? In fact, the effectiveness of existing voluntary schemes will significantly be reduced if people believe there is an emissions trading scheme around the corner.

Cogeneration generally utilises fossil fuels and therefore does emit carbon dioxide, albeit at a much lower rate than traditional power generation. The initial allocation of permits is critical for us because we are new entrants into the market. We want to make sure that the initial allocation does not just reward existing polluters but encourages new low emission entrants like ourselves into the market, so that it does not create a barrier.

CHAIR—Concerning the breadth of your organisation, what groups are involved in your organisation and are represented in the submission?

Mr Brazzale—I should have sent you a copy of our recent publication. I have two copies here, but I will send you more copies. The members of our association are listed on the back, but we cover a broad spectrum from energy companies, developers of cogeneration projects, end-use customers who are potential thermal hosts—in other words, large pulp and paper manufacturers who have existing cogeneration and could expand and have additional cogeneration capacity—and equipment suppliers. Our members are from a broad spectrum of people who are generally interested in seeing more cogeneration.

CHAIR—So they are plants that use their waste to generate electricity like sugar mills and paper plants?

Mr Brazzale—Sugar mills and paper plants are good examples. Even in the commercial sector, you will find examples. The New South Wales parliament has a small cogeneration project. Cogeneration can stem from very small to 100 kilowatts, which is probably the smallest one in Australia. There is one a little bit smaller at the Australian Institute of Sport in Canberra. It helps to heat the swimming pool and it has an efficiency of over 80 per cent. The biggest one is the Smithfield facility in New South Wales which is 160 megawatts. So it is a very broad spectrum which uses a multitude of fuels, with different sizes and different applications.

CHAIR—When I was the Minister for Mines in New South Wales, I saw a proposal for using turbine from the exhaust gases of coal mines, which has not been taken up at this stage.

Mr Brazzale—There is one cogeneration project under construction at the moment. It is at the Anaconda nickel site. It is taking waste heat from one of the sulfur processes and putting it through a steam turbine to generate electricity that is used for the process. There is a number of different ways in which the electricity and the energy can interact but, ultimately, when you measure the input of energy—whether it be gas, coal or renewable—you get a lot more out of it, say up to 80 per cent, than you do with conventional energy. You can get a myriad of different types of energy, from electricity to steam for processing, to steam for chilling applications for airconditioning and the like.

CHAIR—One of the big issues is, if there is going to be a tradable scheme, when is it going to start? I noted in background notes of a previous submission that they tended to say later rather than sooner. You are saying sooner rather than later. There are probably some difficulties across the spectrum. Do you think it is possible to start with some of the easier measurable areas of greenhouse gas emissions and then add to it later? Would you think that was the best way to go?

Mr Brazzale—We certainly do. That, of sorts, is what we indicated in our submission. The electricity sector is the biggest and, more importantly, the fastest growing.

Emissions from electricity are going to increase significantly over the next 10 years. It is the one that is going to contribute the most to the growth in emissions. More importantly, there is an existing set of measures that are in place to deal with some of those that we believe are not going to be effective and, further, they will not be the lowest cost.

In summary, we might as well introduce an emissions trading scheme for electricity now because the existing measures will cost more. Ultimately, the people have to bear the cost. Some of the people who have been advocating the deferral of an emissions trading scheme are the big electricity users. They will have to pay for the cost of these initiatives. We are not yet sure how much it will be, but they will have to pay.

CHAIR—Should the permits be given on present emissions or should they be auctioned? Should there be an annual reduction of those permits, a savage reduction?

Mr Brazzale—We think this is probably the most problematic area. I am sure there is a number of ways that it could be done. We have advocated, certainly in the electricity area, focusing on a market based allocation so that you allocate permits from some base here around the average pool intensity. These things are relatively easy to measure. In electricity, it is easy. That is yet another model that could be used. I am not aware of any schemes currently in place that utilise that model, but it is akin to the grandmothering approach that I noticed the Department of Primary Industries and Energy talked about. You actually allocate not on the basis of existing emissions but on the basis of the emissions per megawatt hour or emissions per unit of output as a way to not favour the large existing emitters.

Mr KERR—How do the new entrants get permits under that system?

Mr Brazzale—Under that system, a new entrant would have permits either to buy or to sell, depending on whether he was above or below the average. Any new entrant into electricity would automatically be given enough permits at the full average emission intensity of the pool. If you are below that, you have permits to sell. If you are above that, you have to buy them from someone else. There is no barrier to new entrants, everyone is equal. It is a barrier to new entrants that have emissions much higher than the pool average.

Mr BILLSON—So arguably an infinite number of permits can be issued, governed only by the energy requirement.

Mr Brazzale—Governed by the average intensity. The average intensity has to decrease over time because the amount of electricity is increasing.

Mr BILLSON—Yes, I understand that. But I think Mr Kerry's issue was that if you have new players coming in, assuming they see a niche in the energy market, they will just get a permit automatically. How do you then bring that back to some national limit, or are we then looking at all the other sectors to pick that up?

Mr Brazzale—In the electricity sector, the automatic permits would be reducing over time, depending on the average of the pool. Existing participants in the electricity market would then have the option to buy permits from other players in the pool or, as you pointed out, the electricity is going to increase much more significantly. They will have to buy permits from, say, sinks and other sources.

Mr BILLSON—So a different process would apply to a generator who wanted to increase output compared to someone who was starting on a green field project?

Mr Brazzale—No, I think they both would be faced with the same arrangement. As an example, the current pool intensity might be about 800 tonnes per megawatt hour. A new entrant with 900 tonnes would have to pay for 100 tonnes. An existing participant would only be given an equivalent of 800. If he has 1,000 tonnes, he would have to buy 200 tonnes. They are both treated equally.

Mr BILLSON—So if I restructured a business and called it something else other than the company I already ran, I would be given my permits, but if I wanted to add three gig to my production capacity, I would have to buy them.

Mr Brazzale—Only to the extent that you are above 800.

Mr BILLSON—I am just trying to clarify this. I assume that you are saying that, if you are producing a substantial amount of CO_2 greenhouse emissions and the amount of greenhouse gas you are emitting per unit of energy is above the average, you will only get an average allocation.

Mr Brazzale—That is correct.

Mr BILLSON—That would mean that some existing players would immediately have to purchase permits to continue doing what they are currently doing and others would presumably have permits to sell. Is that right?

Mr Brazzale—Snowy would have a lot to sell and Hazelwood would have a lot to buy.

Mr BILLSON—And your members would be smiling?

Mr Brazzale—Some of them. Probably most of them would be below the pool average. Say we are automatically given 800, but are only generating 400, then we have 400 to sell to Hazelwood.

Mr KERR—So you would say that the average impact across the system is not going to increase the price. Will it increase the price of some source power as against other source power?

Mr Brazzale—I think it would always increase price, because otherwise you would get the cheapest—

Mr KERR—I am just trying to work out the implications of this system, because it is not one—

Mr Brazzale—We would argue it would increase price, but not as much as other mechanisms.

Mr KERR—What do you say about the economists, the number-crunchers, who put the theoretical argument that if you allocate free permits across the board to start with, you are not giving any economic advantage to them, because the marginal cost of production is the only thing that is affected by new investment? Intuitively it seems wrong. I can see the argument you put, but the academic economists that I have had this discussion with know that the intuitive argument is wrong. There is no advantage given if you make a free allocation of permits because it is the marginal cost that we are focusing on. If they can do better by selling permits than by production then they will sell. Therefore, the market impact of this is neutral.

Mr Brazzale—I understand, but I do not know if I accept that fully. The problem then becomes: what do you do with new entrants? With existing players, particularly in the electricity sector, there is a very small number of large players. That is another mechanism for them to keep new entrants out: they will just not sell permits. Where is a new entrant going to get permits from? We will need permits. We have got to compete with existing generators. All of a sudden you have imposed a cost on our members and—

Mr KERR—You are saying the market is so thin that some people will not sell, they will simply use this as a barrier to competition. Is that correct?

Mr Brazzale—Yes, to keep us out.

CHAIR—Don't you think that better technology which will reduce emissions will give them a bank of credits, if you like, that would be available to a few entrants?

Mr Brazzale—In the electricity sector you have essentially got a large stock of existing coal plant and a few more that have just been added. They will continue to generate using that technology. There is no incentive to close down those plants. That is what you need, you need to close down—

CHAIR—I have seen engineers with proposals to improve the efficiency of the present coal-fired generation plants.

Mr Brazzale—They will definitely improve the efficiency but they will not necessarily improve the emission reductions. In fact, what they will try to do, if anything, is increase the efficiency and increase the capacity. The Hazelwood power station is a very

good example. It is the worst emitting large thermal plant in the country and it was due to be closed. However, it has now got a new lease of life. Unit 7 has been brought back on line and it is emitting at over 1,400 tonnes per hour.

CHAIR—If I were a big coal-fired generating operation which was having difficulty with emissions and we had a scheme in place which I spoke about earlier which would gradually reduce the emissions and it was impossible for me to do it with my present plant, would you not be a very valuable asset if you could be part of the operation and reduce the emissions that way?

Mr Brazzale—If you impose an obligation on him to reduce his emissions through an emissions trading scheme, there is an incentive for him to close the plant or do something else, or buy them from someone who can reduce emissions much cheaper than him.

Mr BILLSON—Or engage in sequestration activity.

Mr Brazzale—Some form of emissions trading scheme we think is the best way to go, even at existing plants, but unless you actually get the emission reductions as part of the investment decisions you are not going to get any change. That is the fundamental thing that has to happen. People building new plants, and even people with existing plants, need to face some costs because otherwise you will not—

Mr KERR—I am aware that you were engaged in some discussions with the ACCC about the way in which you access the grid. That was something that was concerning you about the competitiveness of cogeneration. Is that an issue which is material to this inquiry or is that entirely separate from it?

Mr Brazzale—It is a very material issue and it goes to the heart of some of the new coal plants that are going into Queensland. In the brief summary that I have handed out there is a quote from the Commonwealth government submission which pretty much reiterates our concerns. For the Queensland coal plant they do not have to pay the cost of augmenting the transmission systems that connect them. That is, if you like, a subsidy that is paid to them by existing customers. There is a separate line item in the Queensland government budget that identifies that quite clearly.

CHAIR—What does the ACCC say about that?

Mr Brazzale—The ACCC has said that the incidence of transmission costs is wrong. They have not come up with a better solution.

CHAIR—The ACCC would say to the Commonwealth government that they should not get any benefits from this because they have not complied with competition policy, wouldn't it?

Mr Brazzale—No, that is the NCC.

CHAIR—Sorry. I meant the NCC.

Mr Brazzale—That is true. That is another process and we would argue exactly that point. A lot of the state governments ought to get competition payments because they have not really created a level playing field in the electricity sector. They still have an arrangement that favours the assets that they own, which are predominantly generators and also distribution businesses.

Mr BILLSON—Just on that point: isn't that a question of the stage of maturation of the Queensland electricity market? I know in Victoria you have separate transmission ownership structures and a regulator-general playing a role in trying to equalise those transmission costs across the various players. Isn't that something that may still happen in Queensland but they are not quite there yet?

Mr Brazzale—No, not necessarily. The issues will be dealt with as part of the National Electricity Code Administrative Review on transmission distribution prices, which is happening as we speak. We are hoping that that actually delivers what the Commonwealth government is seeking from it. It is not necessarily a state transitional issue. It is a market issue. We believe that in the haste to implement reform a lot of these issues were just overlooked.

Mr BILLSON—I am suggesting the institutional structures are creating some of those problems. Getting back to the point, the thing that concerns me is that some of the people we have spoken to see emissions management as just another regulatory instrument to either get around or take advantage of, or just as adding another variable to the market mix. The thing that sometimes gets lost is there is supposed to be a point to it and that is to get the emissions down. With that in mind, would an alternative to your concern about overcoming barriers to entry be an initial allocation, as we have discussed before, and some discounting?

But even if the initial allocation was not for the full value of current emissions, but the allocation was to start a couple of years down the track with an announcement today so that there was some reward for effort with the government retaining some permanent capacity to either make available through the market place or whatever, isn't that another way without going to the absolutism that is often talked about?

Mr Brazzale—Yes. I think that is true. As long as there is a mechanism there that just does not automatically guarantee the existing emissions for the existing players. They can have some grandfathered, some even grandmothered, and then they have to buy some from the pool. There needs to be some mix provided there are signals in the market that reward low emission new entrants. Ultimately that will be the test of how effective the allocation is.

Mr BILLSON—The market based solutions are strongly advocated by some until you talk about who can purchase the permits. Sulfur dioxide US you know. Some people are sitting on them, going along on them. Some environment groups are just sitting on them to bring about a faster improvement in air quality. Are you one of those that is looking for a market mix limiting the number of players who can actually acquire the permits?

Mr Brazzale—No, we are advocating that anyone should be able to acquire the permits.

Mr BILLSON—So the prospect of, say, some of your new players having to buy a permit through an auction process and being priced out by a super fund that wants to camp on them for a while does not concern you?

Mr Brazzale—That is not a problem. As long as our competition has to buy a reasonable amount of permits through the same process, that is fine. But the real concern is if they do not, then we do.

Mr KERR—You are urging speedy transition. We just heard somebody urging that it not be until 2005. There is some argument that there be some delay to make sure that at least the design is going to be complementary with regard to the sort of designs; you can never be certain until other countries develop their systems, but an incompatible design arrangement that isolated Australia from the capacity for cross-border trading and fitting into an international regime would seem to be undesirable. Do you have any view as to whether there should be some holding off at least, just to look through those sorts of issues? You are saying, 'Do it now, do it quickly.' Do you just say, 'Worry about that afterwards. We can adjust the design if we have to move into an international framework'? That does seem to me to be a legitimate point that some people have raised.

Mr Brazzale—I have often wondered—again, it is not something on which we have done a lot of work—whether it really matters. Ultimately, the thing that matters is reducing emissions or managing emissions here. If there is a better, more effective way to deal with it in Australia, why should we bother with what happens internationally? Again, they are driven by other things. The European Union has got lots of gas. Australia has got lots of gas but lots of coal, too. So you have different drivers in each country. As long as there is a mechanism to trade, I do not think it matters what you do at home.

CHAIR—Basically, they are probably two different markets, aren't they? What you do at home is probably a bit different from what you might do on the world trading scene, because you are trying to gain credits on the world scene by selling either better technology or sinks, whereas controlling your own area is probably a little bit different.

Mr McDOUGALL—I want to come back to some pretty basic stuff to try to understand all of this. What is the percentage of energy of cogeneration into the grid at the moment?

Mr Brazzale—Cogeneration currently accounts for about four per cent of total electricity generated in Australia and there are about 1,800 megawatts of capacity compared to about 40,000 megawatts of capacity.

Mr McDOUGALL—What is the growth that cogeneration is looking for over the next 10 years as a percentage of the total market—not of the existing market but of the whole energy growth market?

Mr Brazzale—It really comes back to what the opportunities are in the market and what signals there are in terms of a whole lot of transitional issues on electricity market reform. We think we should be able to get to 20 per cent by the year 2010. If you look at what is happening overseas, they have got a much higher percentage of cogeneration than Australia has and they are also looking to expand it significantly.

CHAIR—If you get to 20 per cent, what does that mean in relation to an increased cost in energy to the purchaser?

Mr Brazzale—There need not be any increase in cost, but it does depend on how the market is structured. The real concern is that, over the last couple of years, we have not seen any cogeneration projects committed. It is just too hard to do because of transitional arrangements in the market and you have got a whole lot of commitment to new capacity by governments, we would argue, that is not commercial. So it is still going to be really tight to get cogeneration implemented over the next four or five years. But, ultimately, we think the arguments for cogeneration are pretty compelling because it is much more efficient, there are lower emissions and you can locate it closer to customers, so you should be able to reduce network costs. It is only when those attributes are recognised that you will see more cogeneration.

Mr McDOUGALL—You have said that you believe there should be no limitation in relation to who should trade in emissions. Just correct me: are you referring purely to the energy market here—and I say that in the sense of the electricity supply market—are you referring to all emitters of CO_2 or are you just sticking within your industry?

Mr Brazzale—No, I think there should be a blanket opportunity for everyone, provided they meet certain prudential requirements—that is probably the only restriction. So if people want to trade permits, that is fine; it should be open to everyone just as other commodity markets are open.

Mr McDOUGALL—Correct me if I am wrong, but a moment ago you said that really you do not see links in an international regime as very important—you see a domestic regime as more important in relation to trading. What happens if you have an industry that has great difficulty getting technology improvements, at this stage, and reverts to an international supply base because they cannot meet a target set under some regime as to what they should do, and they find it more financially viable to import than to buy permits because the open market has lifted the permits to such a high point? I am

relating here purely to the cement industry. First of all, if you do not have an international market agreement you run the risk of distorting your own market.

Mr Brazzale—Firstly, I did not necessarily say that an international trading scheme was not important. I do not think it is that important to get it necessarily consistent with Australia's. I think both are really important. The issue you have raised with regard to the cement industry is pretty much the same question that was raised in the last session with the aluminium industry. Industries in Australia have to internalise the cost of emissions but industries overseas do not and that is not a level playing field. That is the problem. I am not sure how you can deal with it, but there are ways like joint implementation and other types of initiatives—some of them you have talked about.

Secondly, the cement industry is going to have to pay more for their electricity anyway. Under the renewables initiative it is at least $2 for that. I do not know how they are going to implement the generator efficiency initiative but that is going to be another cost. The cement industry, with current measures, is going to incur additional costs. The question is: could that cost be lower with an emissions trading scheme where there are a lot more opportunities to reduce emissions than through the existing command and control measures, which may not be effective in any case?

Mr McDOUGALL—How do you link technology performance and emission reduction levels along with the ability to be able to purchase permits on an open market and at the same time achieve better efficiency and less emissions?

Mr Brazzale—I am not sure I understand the question.

Mr McDOUGALL—Say you get a free open market in relation to trading in emission permits. Those emission permits may be bought on an international market or a domestic market. If they can be bought on an international market the capacity to buy is going to be far greater. We do not know what the price is going to be. How is government going to set for an industry or an industry group a performance level to encourage them to reduce emissions, to get better, rather than simply to go out and buy the permit on the open market because the trading opportunities are far better to do that?

Mr Brazzale—We would argue that you should not impose a performance on a particular industry. You ought to provide them an incentive to perform because they will have to bear a cost. I would disagree that the most effective way is to impose. Coming back to the question about whether there is potentially a different price for emissions domestically and internationally, I think they would have to be pretty close otherwise people could trade them internationally. So you would find that the value of permits internationally and domestically should be roughly the same, but how you deal with permits domestically can be different for each jurisdiction. I am not sure if I have answered your question.

Mr McDOUGALL—No, because I am still trying to find the link between the performance levels and improvements in production and reduction in emissions with the permit system.

Mr Brazzale—If you were Hazelwood and you had to buy a bunch of permits to keep operating at your existing capacity or you could invest half that amount on technology to improve your output, you would do it. If someone next door could reduce their emissions at a lower cost than you could and achieve emission reductions, you would not do it. You would delay it until the cost of the permits was sufficient to warrant your investment. We would argue that it is a much better signal for when you should invest. You should only invest if the cost of not doing it is greater.

Mr McDOUGALL—All right. I understand that. Who then sets the limits in relation to permits to be able to work alongside and create the reduction at the same time?

Mr Brazzale—That is your initial allocation problem. That is the real issue in making an emission strategy work—setting the initial allocation and your baseline or your base period. That is the really tough bit.

Mr McDOUGALL—How do we then bring all the non-signatories to this into the game so that we do not end up with the ability to avoid the system through international trading?

Mr Brazzale—That is a good question. I wish I had a good answer but I have no idea. That is real important. For me, with some of the arguments that some of the environmental groups have put—and I am sure you agree as well—there is no way known you can expect the developing world to do anything unless the developed world is showing the way. I think that is a very strong argument. I also accept the exporting Australian jobs argument as well. Some of our industry would move offshore if it were a significant cost.

Mr McDOUGALL—The reason I have asked that question is that I agree with you in principle about creating this system sooner rather than later. I do not agree with the year 2005, but there does not seem to be the system there to be able to create to make it work anyway.

Mr Brazzale—I think in electricity there is a framework within which you could easily do it.

Mr McDOUGALL—So in that case would you suggest that we restrict trading in permits purely to within the industry while the rest is put in place?

Mr Brazzale—Yes, or you could even introduce the allocation and trading mechanism within the electricity industry but you still can have some trade into I think they call it a bubble. You have an electricity bubble and you can have ins and outs of that

bubble. That then starts creating value for a whole lot of additional investment in sinks and so forth. To our mind, you can get on and do something quickly. Things are happening in that sector anyway that are not as effective or efficient, so you have nothing to lose.

Mr EOIN CAMERON—I am interested in the figure of four per cent of cogenerated power at the moment. I noticed in the list of members of the Australian Cogeneration Association that all the big generators are included. Does that four per cent of cogenerated power include major players like Western Power, for instance, with the Esperance wind farmers? Is that considered cogenerated?

Mr Brazzale—No. We do not consider wind turbines or solar as cogeneration. For us you actually need to have an alternative use for the heat. So you need to have an existing commercial or industrial customer who is actually taking the heat from the unit. They would otherwise have had to use hydrocarbons to generate steam or chilled water or whatever.

Mr EOIN CAMERON—And you believe you can get that four per cent figure up?

Mr Brazzale—If we look at international benchmarks, we should be able to. But it is going to be a really tough time both for our sector and for renewables over the coming four or five years. You need to get a better framework that rewards the benefits these technologies can provide, otherwise you will not get them up.

Mr ROBERT BROWN—Going to the question of the market within which this trading can take place, if it is confined, say, within a particular industry intranationally, presumably one electricity generation company would be able to buy, and another sell, permits within that industry. That would then allow existing participants in the industry to exercise control over the permits which they have available to sell, to the extent of not selling them in order to keep out other potential participants or to limit their capacity to expand. Then, if international trading was also allowed on an industry basis, an inter-industry basis or just on an international basis, there is a whole range of possible trading arrangements which can be introduced.

Among all of those, which would be seen to be the most desirable to ensure that opportunities for new participants were as open as possible, that existing participants and future participants were as competitive as possible, that the whole arrangement was transparent, and that there were no monopoly constraints being exercised on the part of existing participants anywhere around the world to keep others out? Is there a model that you are familiar with which has been identified as being the most appropriate to ensure openness, competitiveness, free entry and transparency?

Mr Brazzale—When we were putting our submission together, we did look at a number of different approaches. We tried to look at how you solve the initial allocation issue whilst not creating barriers for new entrants. That is how we came up with this

allocation at the pool average type of approach. We think that in itself is workable in the electricity sector and that it actually could drive lowest cost outcomes. But that would not necessarily be compatible with any other sector in the Australian economy, or even internationally. But if it does drive the most efficient outcome within one industry sector and that means Australia's emissions are reduced, someone in Australia will have emission credits to sell internationally.

In answer to your question, the issue of the initial allocation is the hardest issue, but you only have to sort it out the first time and then it really takes care of itself. Provided someone who is emitting greenhouse emissions here can even buy permits internationally—it really does not matter where they come from, as long as they can get a permit to generate those emissions—that should be fine. We would not prejudge as to whether it is better for existing players to improve their performance or for new, better performers to come in. That is really a market decision.

Mr ROBERT BROWN—In that international scheme, should an Australian electricity generator be able to sell permits to a North American cement producer?

Mr Brazzale—Yes.

Mr ROBERT BROWN—One for one.

Mr Brazzale—If there is a value of permits internationally. If there is a value for CO_2, it really does not matter who trades. Anyone can trade.

Mr ROBERT BROWN—How then do you avoid artificial constraints being built into the system by people who have had the credits available to ensure that North American cement producer does not have to go out and plant a forest in order to get the equivalent of a credit?

Mr Brazzale—He may find it is cheaper to do that. Ultimately, the price of the credits will move up to the extent that there is a shortage of credits, but that will just encourage more low emission generators or more forests to be planted. So it is much harder to exercise market power when there are a lot more participants and there are a lot of different alternatives to creating those credits.

Mr ROBERT BROWN—Will credits also be available for sale to non-participants?

Mr Brazzale—If emissions trading gets off the ground, we envisage there will be a liquid secondary market. Even if you did not exclusively provide it, people would make arrangements outside the market or enter into contracts outside the market, so you cannot stop people trading.

Mr ROBERT BROWN—Could you finish internationally in the emission credits market with a Bill Gates?

Mr Brazzale—Only if you went and bought all the generators in the world.

Mr ROBERT BROWN—Well, that is a bit dangerous. What about buying the credits—not the generators, but the credits?

Mr Brazzale—There have been some perfect examples. You had the people who tried to corner the silver market. It is a commodity like any other commodity, except this one will probably be much deeper—in other words, it is much more extensive with many more participants—and that will reduce the risk of things like that happening.

Mr ROBERT BROWN—The United States is taking action against Microsoft and Bill Gates today.

Mr BILLSON—Just on the sequestration side of things, I interpret what you are saying as meaning that sequestration equals the creation of new permits that can be transacted, as distinct from them being offset values to reduce the net permits required by an emitter.

Mr Brazzale—That is correct, but there is probably not much difference.

Mr BILLSON—There would be a world of difference.

Mr Brazzale—In effect, there is not. What we would argue is that you would want to make sure the emitter was not responsible for going and investing in the credits. So there should be a market for individuals or existing proponents of the sequestration scheme to go into.

Mr BILLSON—We have had other evidence that particularly sinks, plantations, reveg projects and those sorts of things should be offsets, so to get value out of them, you need to marry up with an emitter because of the uncertainty surrounding the calculation of their value and the fact that you might have 100 different land holders required to be involved in a scheme that produces something of value that would be traded in a market-place. That was the thing and that forces those people to marry up with emitters. If that model was to be applied, starting with the energy production sector, it would give that sector a huge advantage in making those early relationships work for them—perhaps not to the advantage of some other players in the emissions game.

Mr Brazzale—If there was a transparent market for the credits, there should be no reason why someone who is not even connected to the grid is getting the value for that.

Mr BILLSON—I understand that. I am just saying that others are saying not to create credits, such as sequestration, because they would be bolted on to an emission

activity to reduce the net outcome. You would buy credits for the net overcome to get over some uncertainty. That was the theme of it. Some of the institutional structures that you have advocated in your paper are very electricity focused and I would imagine would not wash with any other sector of the economy. Is that a problem or would you see that each sector should set up its own verification structure and we should leave it to each sector to be credible in that regard?

Mr Brazzale—We argue that there are compelling reasons to do it in electricity first. If you did it with electricity you have existing market arrangements that actually measure exactly what each generator is producing and it is easy to calculate the emissions.

Mr BILLSON—So you would migrate out of that to more generic structures over time?

Mr Brazzale—It seemed like the lowest cost, most effective way to implement it in the electricity sector. I accept the point that other people may not be happy with that. It comes back to the transaction costs.

CHAIR—It is 60 to 70 emissions, is it not?

Mr Brazzale—It is 40. It will probably get to 60.

CHAIR—Mr Brazzale, we will have to leave it at that. Thank you very much for your evidence.

[11.07 a.m.]

ADAIR, Mr Roy, Chief Executive, Yallourn Energy Pty Ltd (on behalf of Victorian Brown Coal Generators), Eastern Road, Yallourn, Victoria 3825

GRIFFIN, Mr Max, Manager, Environment, Yallourn Energy Pty Ltd (on behalf of Victorian Brown Coal Generators), Eastern Road, Yallourn, Victoria 3825

LAMANDE, Mr Steven, General Manager, Corporate Services, Yallourn Energy Pty Ltd (on behalf of Victorian Brown Coal Generators), Eastern Road, Yallourn, Victoria 3825

CHAIR—We have received your submission and authorised its publication. Do you wish to propose any changes at this stage?

Mr Adair—We have no changes at this stage. I point out that we appear on behalf of the submission from the Victorian Brown Coal Generators comprising Edison Mission Energy, Hazelwood Power, Loy Yang Power, Yallourn Energy and Energy Brix Australia.

CHAIR—Before we ask any questions would you like to make an opening comment?

Mr Adair—I would like to make a brief opening comment in support of the submission. We feel the submission is succinct and comprehensive and addresses the issues raised in your terms of reference. The points I would make are that the five brown coal generators, in an area that is clearly not contrary to the Trade Practices Act, have come together to address an issue that clearly concerns the nation—that is, greenhouse gas emissions. We have come to a common view on the desirability and implementation of a market system for trade in greenhouse gas emissions as envisaged by the Kyoto Protocol.

We are concerned, however, that, in the design of any such market structure, cognisance is taken of the existing structure of the industry and the dependence on the brown coal generation. It is important for the Victorian economy and the Australian economy as it produces $16 billion in GDP.

I think you should be aware that the five companies that are party to the submission are effectively the main producers of electricity in Victoria. They produce in the region of 85 per cent to 90 per cent of Victoria's energy requirements. Clearly, Victoria is Australia's biggest manufacturing state and, on a accelerator or multiplier principle, brown coal electricity supports something like 160,000 jobs in the state.

Greenhouse is also a major regional issue. We have brown coal generators located in the La Trobe Valley. Therefore, this has significant economic implications for the continuing existence of those generators.

These generators are also very mindful of the greenhouse issue and are signatories to the greenhouse task force pledge that was made back in November where they pledged to achieve reductions in greenhouse gasses by the year 2002. Those reductions take account basically of the configurations of plant and equipment that we already have.

There is already an investment of $16 billion in the Victorian assets. The assets that I talk about are all in private sector hands, and $16 billion has been paid for those energy assets. Those energy assets clearly are configured on boiler technology and there are limitations as to the changes that we can effect. Already, these generators have achieved significant improvements in their efficiency and in thermal efficiency. The pledges that they have made under the signing of the greenhouse agreement reflect stretched targets which are nonetheless achievable.

We are in favour of market-based measures for managing greenhouse gas emissions in preference to regulatory tools and taxation because that creates its own transparency and, in our view, creates the right sort of drivers in the marketplace, which is that we have an overall target that we wish to achieve in our economy or internationally and the credits themselves should be driving the right sort of reductions in the production of greenhouse gasses and ensuring that we do optimise emissions on a national and international basis.

We are keen that emissions trading should offer the opportunity for carbon sinks to operate effectively within that. We are therefore also particularly interested in participating in the development and implementation of emissions trading. Clearly, the development of the appropriate model, both nationally and internationally, is an area that we would like to work very closely with the government in establishing.

We accept that emissions trading is a key provision of the Kyoto Protocol that will also be needed to be linked as part of a tool kit of issues attacking the whole greenhouse gas issue. These areas should be complementary. They should, as far as possible, ensure that drivers are consistent and recognise that certain tools operate more effectively in certain areas. In our view, the beauty of the emissions trading is that it is a marketplace mechanism. We look forward, beyond this submission today, to working cooperatively with the government in developing a working and optimum policy for emissions trading.

CHAIR—Thank you. Could I lead off by saying that you seem to be adopting a similar approach to the Victorian government—a softly-softly approach to this emissions trading. We have had evidence at other hearings that in fact the Americans and Japanese, in particular, are pre-empting what might happen on the world scene and are already moving to try to consolidate their position in what might be a tradable market by approaching other countries to develop sinks et cetera. So, from that, would you consider that we cannot leave it too long before we start to decide what we are going to do in Australia?

Mr Adair—It is absolutely imperative that we think widely around this particular issue. I do not believe we have much time in terms of the design of a mechanism that will work appropriately and will not disadvantage either localised economies or national economies in the determination of an overall international trading policy. I believe there are a significant number of issues that need to be addressed; you have mentioned these within your terms of reference. What I would like to see coming out of your working group is a plan of campaign and a practical timetable that will work together to address these issues. I believe it will be very difficult to actually define an optimum solution recognising the competing elements, but a market that can operate perhaps on a transitional or phased-in basis, that has the correct drivers in place, is capable of working. It may well be possible to work on something on a national basis first before moving to some form of international credit trading.

CHAIR—You do say in your submission that the international situation is not clear at this stage. I want to explore that a little. Are you saying in this particular tradable area or on greenhouse in general?

Mr Adair—I think greenhouse in general. Each country is basically lining up behind its targets to basically see how it will do against all of its other greenhouse measures emissions trade and fit in within that. We need to understand how it fits within their overall target regime. In this sense, we should seek to avoid any potential disadvantage that could come. It is recognised that Australia was given an increase whilst a number of other countries were given a reduction in the Kyoto Protocol. It is unclear. We are not aware clearly of how it works in every country. Research has to be undertaken on that basis to see how it works in terms of achievement of overall targets. This is only one tool in terms of achieving the overall emissions targets.

CHAIR—You probably heard the previous witness. We have had other evidence that the electricity industries, probably the cement industry and other manufacturing industries are the easiest to measure as far as greenhouse gases. Would you agree with the previous witness that we start from these areas that are clear so we do have some easy, measurable areas instead of trying to embrace the whole area at the present time?

Mr Adair—I think this is really part and parcel of taking a structured approach to the issue. No industry should be ruled in and out on the basis of either measurements, but I do believe that, in terms of working towards a practical market model, some industries are more easily disposed to getting a model in and working first off. I would not be keen to see industries omitted from the overall operation of this scheme because it is in the too hard category. What we would clearly like to see is that in the electricity industry we think that we are disposed to working with the government to develop a workable system. I think I do agree with the previous speaker in that there is a market mechanism in place already with derivatives already in the marketplace. It is a relatively easy extension to move on to that.

If we look through the areas in terms of measuring greenhouse emissions, yes, we do have a proven track record. In the case of working with the EPA, Yallourn and the other generators, they not only have systems compliant with ISO 14001 but also clearly have an accredited licence status with the EPA which means that we have evolved a system of measurement and reporting which monitors very closely our progress in terms of achieving improvements against each of the greenhouse gas emission areas.

Measurement is not a problem. In terms of the cost of measurement, we are always seeking to optimise and ensure that these costs are kept to a minimum, because any scheme that we try to put in place should have as low an overhead as possible, because clearly the higher the overhead, the greater the dilution factor associated with the efficient operation of the permit system. We are also clearly bothered about the end customer. We are after something that is simple, certain, and equitable basically.

CHAIR—Given that you might go down a track of giving permits, I want to put to you a hypothetical model and ask for your reaction. If, for instance, the government had decided that they would look at the overall greenhouse gas emissions—not just $C0_2$ but other gases as well—and make some gauge or take some judgment on what they are and what the levels are, if 50 per cent of those permits were given to existing emitters, 30 per cent were put on the auction market and 20 per cent were held, would you see that as being a reasonable starting base for a permit system?

Mr Adair—No, I would not. I think in that instance, whatever starting position, we have to look basically at what commitments have already been made to this economy in terms of the use of private capital and what the right drivers are in terms of overall employment initiatives. It is the environment considered amongst a number of other goals, which clearly will include the wellbeing of the economy as well.

A lot of capital has been sunk into these assets, and I think we have to recognise the starting position of a number of them. We have to put the right drivers in place for improvements in existing assets but recognising clearly where they come from, and this is where a grandfathering approach is appropriate. Also, the right incentives for new assets coming on to the marketplace should be there. So the allocation system, I believe, has to be thought through very, very carefully, but we have to recognise the starting position of a number of these asset bases.

We are more than happy to work with the committee on looking at the financial implications in that. We have financial models available that can assist, and we would like to work together to determine that. But an arbitrary allocation on that basis—and I do not mean that in a derogatory sense—would virtually destroy part of the industry as it currently stands.

CHAIR—You would be in a much more powerful position to buy it though than a new entrant, wouldn't you?

Mr Adair—I think what we have to do, as I said, is design a system that recognises that the right drivers for new entrants are there; that, when we are talking about new entrants entering the energy market, they are ones that clearly are able to enter this marketplace with the right pressure on emissions. Clearly, if you took this through to its logical conclusion, it does tend towards the cleaner fuel base sources such as gas.

But clearly there are, as I said earlier, a number of other economic issues that have to be balanced, and this is a task that we do not underestimate. The starting position, the development of the framework, is absolutely critical. You have a pledge from this industry here to work hard with you to determine something that is achieving the overall goals but is also equitable in its application.

CHAIR—You would accept though that, whatever ceiling were set initially, it would be important to try to reduce that year by year to an acceptable level of emission: half a per cent or one per cent, or something like that?

Mr Adair—I think what we would sign onto, as we already have in our greenhouse pledges, are stretch targets. I think we have to realise what is achievable, and in setting the framework we have to be realistic. It is no use picking a figure out of the air and saying, 'We'll achieve a 10 per cent reduction' when it is impossible with the actual physical configuration that you have. I think we have to recognise, with the commitment of existing capital, what is achievable and put the right drivers in—first, for improvements in performance and, second, basically for attracting the right sort of new entrant into the marketplace.

CHAIR—But Kyoto certainly sets some targets for the whole country, doesn't it?

Mr Adair—It does indeed. That is why we said before, when we are looking at this, you cannot just look at the electricity industry in isolation; you have to look at the rest of the drivers for the other industries. Where you are fortunate at the moment is that you can have a look, with the electricity model that is in place, at developing something that is workable and could be trialled within the electricity industry.

Mr KERR—The point you have raised about how you allocate permit in the first instance I think is the one that most of us find most puzzling. I think three possible scenarios have been canvassed. One is the allocation of free permit to existing players, with the possible graduated withdrawal of permit over time but with new entrants having to purchase permits at full value. The economic argument that is put forward by some theoretical economists is that they do not suffer any disadvantage; the marginal cost of their entry is the same as your marginal costs of abatement, and so it does not distort the market.

That sounds a bit counter-intuitive to some people, including me, because the commonsense approach seems to be that, if you grandfather existing operators but new

ones have to pay an entry price, they do suffer a disadvantage. It may not be the economic theory, but the commonsense seems to suggest that.

One of the alternatives was the proposal put forward just recently by the cogen people that you operate on some kind of averaging system of energy efficiency. That was a suggestion. Another alternative would be of the sort the Chairman put forward: some kind of auction system for a component of permit for existing operators. I suppose the third possibility that exists would be to have a market structure that basically requires everybody to purchase permit, which I suppose is equivalent to an energy tax in a different form. I am just wondering how you sit with respect to these kinds of different propositions. Can we be a bit clearer about where your starting point is?

Mr Adair—I can be quite clear on that one. I must admit that as an industry we do favour the first option, but that does not mean that we abdicate any responsibility towards greenhouse emissions. The economists, as we well know, can define a perfect working model but we have to take account of what is actually on the ground.

We are not in a greenfield situation. We do have a massive commitment to a certain employment base. We have a concentration of assets within one particular area here in the La Trobe Valley, with massive implications for local employment, the local economy and the Victorian economy on that basis—and also the Australian national economy. We are, therefore, in favour of clearly recognising that the existing players should have a right to a certain level of permits.

But, as I said before, with the definition of the framework, it is impossible, within our submission, if you like, to define what the working entity should be. I think we would like to work around, with the government, the right sort of the drivers so that clearly we achieve the maximum efficiencies we can with the existing assets and recognising a reasonable life expectancy for those assets.

Mr KERR—How do you deal with the new entrant argument then? That is, I suppose, a philosophical and a practical issue for new entrants.

Mr Adair—I do believe the new entrants should be purchasing the permit at full value. Clearly, what you will then have entering the marketplace is the most efficient new entrants in terms of emission levels, and that is the right sort of driver that would be put in place. This is where you have the consistency of drivers in the right direction—that is, driving down emission levels of existing generators and, in terms of a new entrant, looking for the most efficient in terms of emissions.

Mr KERR—What about the thinness of the market argument: that, because it is so dominated by existing players, unless they will release permit in a contracting permit market, essentially you will maintain an effective monopoly if you do not have some kind of proposal of the kind that the Cogen Association put forward?

Mr Adair—I think you have to strike a balance as to what I said before was achievable. You have stranded assets in these areas. If you are going to move to something that was certainly consistent with the Cogeneration model—and I have not seen their full submission—then you would have to consider some form of compensation for the existing stranded assets, which would be a very expensive way of introducing emission trading. That is one of the compensatory methods. But there are other ways, as we have said before, of looking at the way of introducing that.

Mr KERR—So, just from an economic theory point of view, are you arguing that grandfathering you is, in a sense, simply avoiding a dilution of capital?

Mr Adair—No.

Mr KERR—I am just trying to work through this. I am struggling with this myself.

Mr Adair—I think what we are trying to say is: let us recognise the existing base that we have in terms of the assets and what is capable of being reduced. Coming back to the chairman's point about setting realistic targets, this is where the grandfathering approach should come in.

Clearly, we would expect a much tighter regime to apply to new entrants, and I think that is taking account of reality in building a workable model. That is what we are advocating. It is not so much a capital issue. But clearly, when you look at the overall economics, I think you have to recognise that there are investors out there in certain assets at the moment and recognise what the implications of those would be if you were to introduce a significantly tighter regime.

Mr BILLSON—On similar themes, if we accept the virtue of grandfathering but recognise that we need a better outcome from all those who are part of that grandfathering arrangement, would it be something that your industry would consider where permits were issued based on your model of the average of your last three years, with an effective start-up date of the year 2000, but when the accounting period for Kyoto started in 2006 their value might be 85 per cent of what they were when you got them, firstly, creating space in the marketplace to enable new entrants to purchase or, where you guys in the interim period have not been able to invest in sequestration measures or look at your technology, where you have to buy up, and where you are still complying with our Kyoto obligations? At the end of the day we are trying to get our emissions down without throwing the world on its head. That sort of lead-in arrangement with a discounting value of your permit might be a way of achieving that.

Mr Adair—I have no problem whatsoever with the concept. Clearly, it is the values that we associate with that and this is where we need to work together. We are totally as one in terms of making sure the right drivers are in the marketplace, recognising

the realities and creating that space and determining what those values are. We are in favour, as you are, of creating the right space and the right drivers within the marketplace.

I would also add that by emissions trading you will not solve the overall problem. There are other issues. If you take the UK model, for example, and the pledge towards greater renewables, the only way that you will get renewables coming into this marketplace in the sort of volume that you would like to see will be by having some form of subsidy. You then say, 'How do you fund such a subsidy?' so you go back to the UK model and there was effectively a taxation regime linked to that. That is part and parcel of a whole panoply of tools that you would use to achieve the overall—

Mr BILLSON—Or, in our model, you might reinvest the proceeds from the release of those permits that you had sold at some point in the marketplace through the auction process. On the same subject, there is a perverse penalty for your improved performance in your model. The average over the last three years will not pick up to your credit the fact that you have got your plant operating at 72 per cent now, up to above spec. That is extra emissions, so that improved performance on your behalf will actually create some problems for you. I suppose it is better than building another generator though, isn't it?

Mr Adair—We are actually saying that we should be looking, clearly, at existing capacity and its efficient operation. The average three years that we mentioned—

Mr BILLSON—Capacity or performance?

Mr Adair—Both. I think we have to recognise what is commissioned and in operation and working. The improvements that we have seen already with the industry are that there is an increase in availability and also an increase in terms of thermal efficiency and emission improvements from the existing privatised generators.

The accounting regime for this is another area that needs considerable thought. What is the starting point? Does it recognise the capital work that was already committed and pledged? You have to make allowances for that. What we are looking at is: let's realistically look at past performance and let's look at the levels of capital investment that were ongoing at the time of the accounting window for the determination of the starting period, and take those into account. Again, what we are trying to do is put the right drivers in—that is, not those with surplus capacity that is not being used selling off their credits, because it does not put the right driver in place; to recognise those that are, from an economic perspective, base load producers of electricity; and, recognising that position, make sure that the drivers for them are in the right place.

Mr BILLSON—In sequestration measures, is your industry an advocate of creating new permit capacity or do you advocated the offset argument?

Mr Adair—This is something that we have not discussed in detail as a group. We do favour an offset argument, but we can make a sequestration model work effectively. You also should recognise the fact that we are leaders in terms of developing the offset capability, with the significant tree planting programs that have been developed on a basis that is also conducive to improving the wellbeing of the economy because we have an end customer, in Australian Paper, for the wood pulp and have been able to complete the full cycle with the attendant benefits of an overall reduction, on an offset basis, in emissions.

Mr BILLSON—Being familiar with other things you have been doing, are you also advocating not only all sources and sinks but all gases as well?

Mr Adair—We tend to look at the overall emissions envelope—

Mr BILLSON—All six?

Mr Adair—All six. You cannot just look at carbon. We are looking at methane, sulfur, nitrous oxide, et cetera.

Mr McDOUGALL—You mentioned a cost to the customer. What sort of increase do you believe this will be? Have you done any work on that?

Mr Adair—No, we have not as yet. If we are talking about the cost of administration of this, it should be very small indeed because we already have measurement regimes in place. I am in favour of using proven, audited measures which clearly can be utilised. We have recently had a visit from Gwen Andrews, the chief executive of the greenhouse office, and this is an area where we are talking to her about using already existing methods and improving their efficiency in providing the right sort of measurement data. We all have a vested interest in keeping this overhead down. What we are after is the provision of timely, accurate information but in a cost-effective manner.

Mr McDOUGALL—But do you actually see the trading of permits being an additional cost?

Mr Adair—No. We have at the moment the trading of contracts. That is done in a market efficient method. You can have permits traded in the open marketplace fairly easy. There should not be a significant overhead attached to this. But what we have to do is determine the overall basis on which the market would work and what would be needed to make it work satisfactorily and in a transparent manner, and ensure that the right drivers from the operation of this scheme were put in place.

Mr McDOUGALL—How important to your industry then is the parallelling of an arrangement on an international basis at the time of the domestic arrangement—on trading in permits, say, if we go down that track?

Mr Adair—We are very much interested in the international perspective. If you look at the ownership profile of the electricity generators, you have international players with a sound environmental track record. Here is the opportunity to benefit from the application of that expertise as well as in the overall trading perspective. Yes, I would like to see the international dimension added, but my major concern is that it should be on an equitable and even-handed basis—and therein lie particular problems.

The goals that I believe the government is trying to achieve, which we fully support, are fairly simple in terms of laying them out, but in terms of actual achievement the real devil is in the detail. I believe it is going to take the commitment of significant resources of all interested parties to make this happen. You have a pledge from an industry here to actually make that happen. In terms of internationalisation, it is going to be hard enough making it work in Australia. Making it work on an international basis will be that much harder in terms of making sure that we do have a level playing field.

Mr Lamande—I think it is very important from Australia's perspective that we deal with that issue effectively. There are initiatives in the greenhouse office for international partnerships which are based on tracking through an investment trail for the allocation of the credit rather than necessarily benefiting Australia. In international companies like those emerging in the electricity industry, that is an issue we as Australians need to grapple with effectively.

Mr KERR—Sorry, I cannot quite understand—

Mr Lamande—As Mr Adair said, there are many initiatives taking place under the greenhouse banner as a result of Kyoto and other government initiatives. I understand that the greenhouse office and the international partnerships program under that office are looking at how we can effectively get a handle for Australia's benefit on credits that are accumulated either through development mechanisms internationally or through joint implementation in other jurisdictions. I think it is critical, from Australia's point of view, that we get a good handle on that and make sure that we get the benefit of the effort that we put in internationally rather than having that lost through investment through the United States, the United Kingdom or other large capital centres.

Mr McDOUGALL—Taking that point a bit further, you are talking about your industry being part of a global network of operators and we know—as I think the chairman raised right at the start—that the Japanese and the Americans are out in the marketplace already buying up. If some of those people who are doing the buying up are part of this global network of generators, where is the incentive for them to utilise better performance and better technology to reduce greenhouse gases rather than simply utilising that capacity of buying which they have been able to do—and which they have already started—to simply buy off the permit?

Mr Adair—I think this is where the devil is in the implementation. The right sort of incentive would have the right prices on these permits and would provide the drivers for determining whether we should be putting new capacity in or whether indigenous improvement in our own emissions producing areas is the way to go. I believe it is in making sure those commercial drivers are going in the right direction that there are going to be major problems in terms of implementation. I think this is what Steve is also alluding to, because you will have not only the environmental targets but a number of economic targets at play. I think there are a number of models around the world where chauvinism tends to rear its ugly head when looking at the achievement of overall goals, and I am referring there to the European Community.

Mr McDOUGALL—I will not pass comment on that. I think you did mention that emissions trading should not be used by government as a means of raising revenue, but you are looking for government to grandfather you for a given period before trading is introduced and you want government to give you some incentives. Where does this all fit together? Government giving incentives, government not getting a return or raising revenue from it—

Mr Adair—We are not saying that emissions trading should be about revenue raising per se. Emissions trading clearly is about ensuring that the right market drivers are in place to ensure that our emissions targets are met by the most commercially efficient means. We are recognising through the grandfathering process that we are not starting from a greenfield situation; we are starting from assets which are already in play. What we need to determine is the balance between the progression we expect towards the most emission deficient form of generation but recognising clearly that there are certain watersheds you would have to cross in terms of other economic decisions before you get there. It is this balance that I think the other questions have also alluded to.

We do not have a carefully defined model here for you. At this stage you are collecting evidence that addresses a number of areas. We have said that it is possible to develop a model. There are problems that will need to be taken into account in the design of such a model. We are pledged to working with you to come up with a model that actually helps us towards achieving our emission targets but also has the commercial drivers in the marketplace, and already recognises the state of the industry. That is a very difficult balance to achieve.

CHAIR—Isn't the right driver though where you are a little bit uncomfortable? It puts you into a bit of an uncomfortable position which focuses your attention and forces you to do a bit of lateral thinking?

Mr Adair—We are more than capable of lateral thinking, Chairman. The price of electricity has spawned a high degree of lateral thinking. Suffice it to say that clearly, despite the fact that we are facing a market in transition at the moment in terms of the national electricity market, which has brought about its own pressures—never mind the

ones to achieve for the environment—we have also achieved significant improvements in emissions during that period, which shows the commitment of this industry to the overall environment goal, recognising the economic insanity that prevails in some parts of our marketplace at the moment. To go back to your position, it is not that we feel uncomfortable, we are on about—

CHAIR—You know what I am getting at, though.

Mr Adair—I do. We are asking for formal recognition to be given to the concentration of industry where it is and recognising where we are starting from, and in the establishment of targets for that degree of reality to pervade, and that we put the right drivers in place for new entrants because we are not out to keep new entrants out of this marketplace. What we are looking for is consistency in those drivers. That is quite a difficult blend to achieve and that is where are pledged to work with the government in terms of developing the right formula.

Mr KERR—Have you got sufficient economic mass to be interested in joint implementation opportunities? You do not refer to it in this paper. Has any of your thinking focused on opportunities you may have in joint implementation opportunities? Do you have any view as to the position that the Australian government might take as to whether joint implementation should accredited between states, or will it be allowed to be traded on an international market on some accredited and properly audited basis but between market-based players?

Mr Adair—Joint initiatives need careful thought. In order for me to give you an initial answer to that question, would you care to define 'joint'? Are we talking about brown coal generators or joint initiatives in terms of our ownership of our parent companies?

Mr KERR—For example, you may wish to, say, acquire emission permits—let us say there may be some establishment of a Brazilian rainforest reestablishment program; I do not know, but something of that kind—which you would then transfer across. I think it is contemplated in the framework convention that such arrangements could be made. But, at the moment, there is still debate as to whether they can be traded between commercial entities or would have to be the subject of state to state agreements. Have you got any thoughts about how the Australian government should address that issue, whether we should take a position on this, and whether you are interested in it?

Mr Adair—I think we are interested in all potential opportunities. We would have to look at very carefully at what level equity at risk boundaries come in there. I think it is fair to say that collectively we have not sat down and thought about that, but that is clearly one of the issues that we should be looking at together. I think it is fair to say that, immediately post this submission, we are not going to sit back waiting for the next issue; together we will be looking at this issue to see how we can advance our thinking. Also,

we will be looking at the research that is available to us in the development of this model. I do not think we have a problem here, but there is a tremendous challenge facing the nation. We have got a chance to actually get out there very early on—a point you made in your initial question—to start developing a workable model. It is a longwinded way of answering your question, but we are saying: 'Yes, we are interested, but it is not widely researched at this stage.'

Mr BILLSON—I have a question about your colleague in south-east USA. Rather than plant a forest he simply bought one in Costa Rica. The net effect to the globe, the net improvement, is zero, yet that is being sold as a virtue. Personally, I find that pretty hard to cop. Do you have a view on there having to be some effort before people are rewarded with transferable permit rights?

Mr Adair—My view is, as I said, that together we have got to look at what drivers are going into this marketplace. It goes back to the point that Steve made, as well: if it were purely tradable in its own right, would this actually also achieve a number of goals? You cannot look at the environment in isolation.

Mr BILLSON—That leads me on to the next question about the annexure 1 countries and the non-annexure 1 countries. Significant clients who are heavy energy consumers will considerably compete with nations outside the loop. Do you think that, when those products come into an annexure 1 country, they should have a triple C attached to them—a climate change compliance something—to bring them up to a competitive neutrality position?

Mr Adair—I think this goes back to the point I made about an even-handed approach to this in relation to international conventions. When we talk about implementing credit trade on an international basis, it is the even-handed approach that causes me the most concern.

Mr BILLSON—I have a couple of quickies on market functionality. Market access: should it be a free-for-all? A few of us could cash up our assets and our super, go along with some of these permits and extort out of you whatever we can get out of you 10 years down the track, could we?

Mr Adair—Again, market structure needs careful thought. Looking back at the drivers—

Mr BILLSON—A free market country—

Mr Adair—As I said, clearly we are looking for a market to operate efficiently. We are not looking for intervention in a market or for it to be unnecessarily constrained. But I do believe that we are looking for the market to be structured properly from the start. We will all gain zero out of this if we have a market that falls rapidly into disrepute.

Mr BILLSON—I asked that question because other submitters have said that, unless you are a player, you would need some permit to say you are a player before you could buy a permit. I imagine you are imagining a rolling permit arrangement. The Queensland government reject that and say it should be a free-for-all every few years, the justification being to make sure their new generators can access the market. My view is that that is overkill—that there are other ways of doing it. Would you be interested in buying permits cold every few years? How would your investors feel about that?

Mr Adair—They would not be too happy about a free-for-all every few years. This comes back to letting us have economic reality within the marketplace and the basis on which investors have already committed resources. I think we have got to go back to the driver and ask, 'Are the right drivers there for the new entrants? Is the market structured to be attractive to all the right sorts of players in order to achieve the overall objective of the market, which is the reduction of emissions?' I am in favour of keeping it under review, but a free-for-all every five years? Certainly not.

CHAIR—Thank you. I will have to leave it there. It is a very interesting discussion and we could go on, but I am sure that we will have other discussions with you.

Mr Adair—We look forward to them.

CHAIR—Thank you very much for appearing.

[11.55 a.m.]

BLAIR, Mr William Ross, Volunteer Solicitor, Landcare Foundation Victoria, 2/24-28 Collins Street, Melbourne, Victoria 3000

HOLLOWAY, Mr Roger Stewart, Committee Member, Landcare Foundation Victoria, 66 Yarra Street, Williamstown, Victoria 3016

YOUL, Mr Robin Michael, Project Officer, Landcare Foundation Victoria, Level 2, Farrer House, 24-28 Collins Street, Melbourne, Victoria 3000

CHAIR—Welcome. We have received a submission from you and we have authorised its publication. Do you propose any changes to that submission?

Mr Youl—No.

CHAIR—Before we ask questions, would you like to make an opening statement?

Mr Youl—We regard this as a great opportunity to put to your inquiry, in person, creative and practical ideas and information in addition to our formal submission. The greenhouse question, for all its negative aspects, can be turned around to promote Landcare, the excellent Australia-wide system of local community groups and regional networks aimed at restoring our land and water resources and increasing the sustainability of our agricultural systems.

In a very Australian way, Landcare groups and volunteers work hard in the countryside, and increasingly in cities and towns, to improve productivity, biodiversity and community morale. There are over 4,000 of these groups across the country—Victoria has more than 900 of them—and there are at least 30 regional networks in our state which typically comprise five to 30 local groups, and many of these networks have received Natural Heritage Trust funds.

We see these regional networks as highly effective and flexible organisations employing paid staff as a working core under community oversight and able to marshal resources and to plan, effect, publicise and monitor complex multi-disciplinary projects with annual budgets of up to at least $300,000 to $500,000—and there is no reason why it could not be rather more than that. These networks are in all states. I only mentioned Victoria because that is the state I know best, but I believe that in Mr Causley's state of New South Wales there are at least 90 networks.

These networks and most Landcare groups work closely with regional catchment management authorities. I think you are also aware that every state has some form of regional catchment management organisation. The names vary, but in every state you have a regional community based system working, usually on a catchment basis, to better man-

age land and water resources. We propose to speak for five minutes each on our own specialities and then be available for open discussion, if that suits the committee.

I will briefly introduce my colleagues, all of whom are members of the Greenhouse Subcommittee of the Landcare Foundation Victoria, a small group that works closely with Brian Scarsbrick and his Sydney based team at Landcare Australia Limited, whom I suspect you will know already.

I am a forester employed by the Landcare Foundation Victoria to help landcare groups and networks plan and manage regional resource conservation projects. I also own 130 hectares of forest. My foundation colleagues and I approach industry and institutions for funds to carry out these projects. Over the last four years or so the foundation, Australia-wide, has raised over $10 million from industry and the business world for landcare projects. My organisation also works with the media, runs training courses, and undertakes wide liaison with all tiers of government and with a diverse range of community groups. It promotes landcare internationally.

The second speaker, Roger Holloway, is an agricultural economist and urban planner who managed many of the excellent neighbourhood improvement projects in Melbourne's western suburbs during the 1980s. I think Mr Jenkins would probably know some of those projects. Roger is a former CEO of Greening Australia Victoria and is always keenly interested in greenhouse matters. He is now the principal of TreeBank Carbon Services, which company consults to government, industry and landowners on carbon related issues, and is positioning itself to play a role in carbon trading.

Ross Blair, the third member of the team, is a solicitor with McKean and Park, one of Melbourne's oldest law firms. Ross practised for over 20 years in the Victorian Mallee, and across the border in New South Wales, so he knows rural Australia very well; Chinkapook, Chillingollah, Manangatang and Mildura—all those places he knows intimately. In the 1990s he came down to Melbourne to work with the Victorian government drafting the state's forestry rights legislation.

A fourth subcommittee member, who is not available today but will appear before you later, is Angus Pollock, a forester from Australian Paper. He also chairs the Victorian Private Forestry Council and he sits on the Victorian Catchment Management Council. As we all do, Angus sees greenhouse action as the key to fully implementing the 2020 initiative. That is the goal of trebling Australia's forest plantations by the year 2020, and he sees greenhouse as a marvellous way to get billions of trees back into the landscapes of rural Australia.

As stated earlier, the Landcare Foundation, which is partly government funded, exists to promote major landcare projects and to attract funds for these community activities from industry, institutions, foundations, individuals, and even from international sources. I see that at present landcare has four big growth opportunities. The first is

greenhouse action and particularly reafforestation to create carbon sinks. The second is working with the Commonwealth in its 2020 initiative to treble the plantations. The third is being practically involved in the various state catchment management systems, to restore land and water resources. I see the fourth as the landcare movement participating in Environment Australia's biodiversity programs, such as bushcare.

It is obvious that greenhouse action links the other three major and very worthwhile activities. Initiation of carbon trading, which will bring new funds to land carers, should do several things: it should increase commercial forestry operations; it should greatly improve catchment values; and it should have a profoundly beneficial influence on efforts to sustain and increase populations of native flora and fauna.

Landcare is already involved with several elements of the power industry. There is an excellent program in Western Australia with Western Power. In Victoria, we have had programs with PowerNet and especially with Edison Mission Energy, representatives of which company were in the room just a few minutes ago. That is a terrific program we have. Edison Mission Energy supports the Powlett catchment management project around Wonthaggi and Korumburra, and it helps landcare groups throughout Gippsland.

We have had some small contributions from some of the other companies. We are constantly liaising with them. We are approaching the other sections of the electricity industry and also the gas industry.

The Landcare movement must be part of any carbon trading system because of its record of achievement, its technical and community strengths, and its ability to communicate through its networks to all rural landowners in localities and regions where Landcare is represented. As I said before, that is most of the country.

In the process, we can surely create many high quality part-time and some full-time jobs in terms of economic and personal satisfaction and community benefit. Roger Holloway and Ross Blair, the next two speakers, will tell you how they see a workable carbon credits trading system being developed, technically and within a legal framework.

Mr Holloway—My focus is on carbon accounting in vegetation. We submit that vegetation is a low cost option—low cost carbon sink—because of the many good reasons that exist already for planting, managing and protecting vegetation. Rob Youl outlined the economic and environmental benefits that attach and the reasons why people are planting vegetation already.

We do recognise that there are many technical and policy aspects yet to be resolved before a sound system of carbon accounting can be defined and agreed. Our submission draws attention to a number of these issues and offers some comments and suggestions. Those topics include eligibility of vegetation to be counted and included; measurement methods; calculation protocols; proof of ownership issues, which will be

addressed further by Ross Blair; specification of the offset that exists between storage of carbon in wood and the measurement of the unit, which has both time and quantity dimensions to make it complex; the equivalence issue between the carbon in plant tissues and the carbon in carbon dioxide as a gas in the atmosphere and their relative offset equivalents; monitoring issues; and also the challenge of how we mesh when we start to look at calculating carbon accounting on a project basis from the ground up with a national statistical reporting system that comes from the outside in—or the top down—where the assumptions are different.

We recognise that decisions on these matters certainly cannot be determined by this inquiry alone and that work is happening on a number of fronts, including the Greenhouse Challenge Office sinks workbook, which is proceeding now. I am sure you have a briefing on that one. Australia also needs to be developing its own approach in negotiation with the IPCC, the Intergovernmental Panel on Climate Change, and any other relevant technical forums of the framework convention. The inquiry report and recommendation should reflect the need to investigate technical and policy aspects as part of these processes.

Landcare advocates that the system for carbon accounting of vegetation should be defined so that it is accessible at small-scale level, whether by aggregation or by individual projects. We have suggested that down to approximately five or 10 hectares should be one of the aims of the market.

This must include the cost of assessment. We would note that there are diminishing returns to increasing accuracy on that front, and hence the importance of some conservatively defined default values that are being attempted to be drawn up in workbooks like the Greenhouse Challenge Office sinks workbook. Also, there are skills needed in rural Australia to undertake that measurement and monitoring and do so with a sufficient degree of accuracy so that there can be verification of the carbon claims made.

Landcare envisages an important role for a government authority, perhaps in the new Australian Greenhouse Office or in some other Commonwealth forum, in establishing the framework and ground rules for a credible and orderly system in the production and verification of carbon credits from vegetation projects. It may be necessary to register trades in order to avoid double counting and in order to connect the results with national reporting statistics. National rules will also provide comfort to a fledgling market which otherwise will be grappling to find a way of describing its product, defining it and being assured that the claim that it makes, to offset vegetation storage against an emission, is going to be eligible to be counted either as a tax benefit or for some other purpose, such as meeting a regulatory cap.

Landcare envisages trading being driven by emitters who seek to reduce or offset their emissions. The purchaser of a vegetation carbon credit will seek an assurance that the credit can be used to offset a known quantity of emissions. This will require a certification of the claimed credit, preferably prior to the transaction taking place. This leads to a

requirement for accredited service providers for the purposes of auditing certification or verification.

There is an important role for a government authority in setting standards required for carbon accounting, monitoring, measurement, calculation and the claiming of credits—in short, all aspects of the process that relate to its technical and specification credibility. These standards can be gathered together, we suggest, under some accreditation rules for which the government should assume an important role. Landcare submits that the implementation of an accreditation system should aim to devolve that responsibility in practice to at least regional levels around Australia, and in that way making it accessible to the community.

The Landcare submission has also made suggestions on the roles and responsibilities of different levels of government and other stakeholders. I might just briefly draw your attention to the fact that, in Victoria at present, there is an inquiry going on in environmental accounting and reporting that you may be aware of, which has the potential, of course, to address these issues as part of its brief.

Landcare submits that, if government can be encouraged to take a positive role in developing the framework and ground rules for a sound and reliable market in carbon credits, then the benefits will be magnified rather than the alternative that exists in front of us—that is, a messy market trying to grapple with defining its own product in the way, historically, other markets have developed for commodities. So the benefits will be multiplied, the timing will be advanced and we will realise people participating and becoming involved in the market within the context of those ground rules, and as a consequence greater benefits will flow to greenhouse mitigation as well as to the participants. Australia will also be seen to be taking a lead in the land use change in the forestry sector which has been included in the accountancy arrangements following the Kyoto conference. That is probably enough from me at this stage; I will await questions.

CHAIR—Thank you, Roger. Mr Blair, it is your turn.

Mr Blair—I will hand out, as exhibit A, eight copies of what I was going to say to you—and you can read it in your spare time—and, as exhibit B, an about to be published article entitled, ‘Legal ownership of carbon dioxide sequestration credits’.

I want to add just one thing. Since the Landcare submission was lodged, I have created a legal method by which, firstly, sequestration rights can be identified; secondly, sequestration rights can be owned separately from the ownership of the trees in respect of which these occur and separately from the land in which the trees are growing; thirdly, ownership of the sequestration rights can be recorded on the certificate of title to the land on which the trees are growing; fourthly, the sequestration rights can be recorded in such a way that full details of the separate ownership of the trees and all other matters relevant to

the growing of the trees are recorded in a public document; and, fifthly, the sequestration rights are protected against adverse rights and claims and from all subsequent dealings with the land or with the tree by virtue of the public recording which I have mentioned.

I believe this method of ownership should be substituted in paragraph 3.2.1 of the Landcare Foundation's submission. The method is the intellectual property of McKean and Park. I am instructed to advise that it is prepared to negotiate in respect of these rights. Thank you, gentlemen.

CHAIR—Thank you. This is a very interesting part of it because, in any market, carbon credits are going to be very important, and I dare say that has been shown fairly clearly at Kyoto. I suppose one of the critical points of this is that, while you have something to sell, are we absolutely agreed on a world basis on the science involved in measuring the sequestration of carbon dioxide into biomass?

Mr Blair—I am not concerned in that. Roger, I think, is the guy you should be asking. I am a legal technocrat.

CHAIR—I would be pleased if anyone could answer because I think this is probably the critical point. How do we measure this so that you have something saleable?

Mr Holloway—That is to be defined through the process and ultimately by international agreement. I have some views—and they were put forward in various attachments to our submission—and that is it relates to the carbon that is held in the form of wood tissue, cellulose and lignin, and therefore held out of circulation or absorbed out of circulation by the growing plant and then held out of circulation by the protected vegetation.

So the two issues of both growth and time need to be taken into account. There needs to be some way of relating the carbon that is withheld from atmospheric circulation relative to the alternative, that is, an emission of that carbon or carbon dioxide into the atmosphere and the global warming effect of that carbon dioxide. I understand the Greenhouse Challenge Office has got some sort of consultancy with CSIRO atmospheric physics, or a brief being prepared, to try to address that issue and look at the equivalence factor.

CHAIR—It is a critical point, I think.

Mr Holloway—It is.

CHAIR—I might ask the forester, I suppose, but at a certain stage, arguably in about 100 years, trees become net emitters, don't they?

Mr Youl—Net emitters? I think it would be a bit longer than 100 years.

CHAIR—Maybe, I am just saying whatever—

Mr Youl—As it declines, senesces gets rotten, branches fall off and it would be net emitting. Yes, I guess so, from an individual tree, but a well-managed forest would be maintained in a healthy condition, talking regionally. So I think you have to look very broadly at the question.

CHAIR—I see a difficulty in some of this. I mean, it is not so much the protected forest that is left to hold the carbon, as you say, but if the product was used and sawn into timber, then that will probably hold the carbon out of the system for a number of years depending on when that building might be demolished and what happens to the timber at that stage. But if it goes into paper then the process is much quicker, isn't it?

Mr Youl—Yes.

CHAIR—They are the difficulties that you get into when you start to say, 'How much is locked up in this process?'

Mr Youl—That is right.

Mr Blair—What we did, I think, was to divide it between emitters on the one hand and sequesters on the other. If an emitter—be they a corporate person or a natural person—emits Australia-wide more than a certain quantity in a year, either by burning papers or burning timber or whatever he is doing, then he is an emitter and those emissions are recorded on an emission return. The sequester, on the other hand, sequesters until such time as ownership of what he is sequestering passes to somebody else or he destroys it, in which case he may also fit into the capacity of an emitter. I think it is only by separating the two that you get any sort of logic to it.

CHAIR—In other words, if your house burns down accidently you are an emitter and you will have to pay a fine.

Mr Blair—No, not necessarily. We said in the submission that it was on the basis of business only, to begin with. So we likened it to the Income Tax Assessment Act, of which you gentlemen will have some knowledge. We said that if on an Australia wide basis you emitted from business then you would be liable for those emissions. Those emissions may, in your judgment, include accidental emissions. That is a matter for legislation.

Mr KERR—I am just worried about de minimus—I have no problems with accrediting sinks; I think that that is a good idea. But I am really worried about a process that requires licences for any emissions from agricultural sources because almost everything that is done in an agricultural environment is a combination of sink and

emission. The planting and rotation of crops all has that effect. The Kyoto Protocol basically allows for credit for change in land use. I would have thought that there would have to be some kind of de minimus rule applying here. We would not want a red tape system where every farmer would have to write down how much firewood they sell. Essentially we might need to look at regulation to be stricter about land clearance to deal with some of those micro issues. But what you really want to do is to be able to say that, if you establish a large plantation and sequester, you have changed the land use and you have that change in perpetuity and you get credit for it.

The credit has to be discounted by the sorts of things Ian was talking about—you would have to have some kind of discount factor because at some stage (after 100 years) the forest dies. So you have to, in a sense, discount. You are making a land use change which has a finite period of existence. You have to apply all kinds of logical mathematical formula to work out how much that is worth in terms of subtraction from the carbon cycle.

That said, and given all those sorts of difficulties, I think it is a very good idea but I am really worried about a process that gets every farmer into a situation where they require licences to do these things. Nothing would turn Australian backs up more than requiring them to fill in another tax form about how much firewood they burn.

Mr Holloway—I agree with the complexity that Duncan Kerr has raised. That really is the challenge of how we specify the unit and where the time factor has to be part of it—whether you actually specify it as tonne carbon years, tonne carbon per 50 years or tonne carbon per 100 years. The time factor, which will ultimately have to be included in the unit's specifications—the quantity and the time both being important—will overcome it. You could go out and measure your plantation as having, say, 1,000 tonnes of carbon in it. That is not the 1,000 tonnes you can sell. It would have to be 1,000 tonnes over a proportion of the agreed time frame. So if the 1,000 tonnes is held for 10 years of your 100 then you have 10 per cent effectively of your 1,000 tonnes that may be marketed.

If your analysis is in retrospect, if you have already got that storage achieved in the bank, so to speak, then there is no speculative element as to whether or not it might get burnt down in a bushfire in three or four years time. This is where you come to the question then on eligibility of vegetation and the extent to which prospective carbon storage or uptake can be counted legitimately and what discounts we might apply there to take into account the risk factor or other economic decisions to harvest early and put it to a different purpose.

Mr Blair—So far as what we propose is concerned, we started from the top by saying that the law should say, if it is imposed, that you will lodge an emissions return but only if your total emissions Australia wide are more than X. So I doubt that we will catch the farmers out. That can be raised or lowered; it is a government decision.

The second thing is that, in the registered document that we propose, time would be recorded. In other words, if you were saying that these trees are to be counted over 100 years, the agreement would say so. That is then instantly discoverable, either by the regulatory authority or by an auditor who wanted to check on it, so you have an actual system which would work.

Mr BILLSON—Just coming back to what Roger was saying, an analogy might be—and correct me if I am wrong—that by introducing this time factor, of affected units over 100 years, if we sold 50 of those units and then we thought we would sell the farm, we are effectively selling a farm where the speedometer has already ticked over half of the life of the asset. Is that right? You would have to have on your section 32: this is the real estate involved; here are the chattels; here are the sequestration values—by the way, we have already chewed up 50 years worth of them even though we are only 20 years into their life cycle.

Mr Holloway—I would agree with that.

Mr BILLSON—So how does the onus then come back on somebody who has bought that property and has thought, 'They've already chewed up most of the greenhouse value in the forest that has been planted. Why don't we just cut it down? Why don't we just turn it into firewood?' Are you saying that, under the structure you are talking about, the land-holder or the person changing the condition of the forest would have to say, 'Hang on, I've only got 20 effective years in the bank, so I'm going to have to cash out the rest somehow'? Is that the thinking?

Mr Holloway—That is the thinking. You should not be able to sell more than you have got unless there are some specific discounting rules associated with it and, in a sense, obligations that relate to it.

Mr BILLSON—But the verification is not only about what is occurring with the forest itself; it is also underwriting the condition so that the value over 100 years—unit over time that you have in there—is being preserved by proper silviculture almost, to keep the sink in a form where the limbs are not falling off and the organic decomposition process is not starting prematurely and therefore not only killing the value but pumping methane into the atmosphere. Is that the thinking?

Mr Holloway—No, it is not. I do not think we need to—if the rules that we are imagining here require something like measurement on a five-yearly cycle, then you are measuring biomass growth at a five-yearly period. That may go up and down in a plantation or on a specified area of land, depending on clearance, on decay factors, on whether some or part of it gets burnt by a bushfire or attacked severely by insects or drought or other problems like that. But the 100-year units factor can be worked out over any particular time frame against the historic record. That is what I am saying.

Mr BILLSON—So you would err on the conservative side—

Mr Holloway—That is it.

Mr BILLSON—to say, 'There is a high prospect here that half of them are going to die at some point, therefore the value would be this.' As I understand it, Kyoto gives you an out if it is bushfire—you do not have to worry about it—but if you harvest it you do. That is my recollection of it. So there is some scope already there.

Mr Holloway—Which is quite bizarre, but anyway—

Mr BILLSON—Yes, it is unusual. I suppose it is an act of faith, put together in a religious country.

Mr Holloway—The unit specification aspects are going to be very difficult. This is where the framework that we were advocating for the ground rules will need to be addressed and agreed internationally for it to work, or at least the purpose for which the offsets are being arranged. If it is within a firm and their submission of a greenhouse challenge is returned to that office, it presumably will be done within the GCO's framework.

If it is being done to avoid having to pay a tax, assuming a carbon tax might be introduced at whatever rate, there might be a separate set of ground rules for this. But there would be some value, I would suggest, in having a whole of government position on these policies so that we have not got a mismatch or a mix of different sorts of rules around and that the same sorts of rules would apply if one was envisaging trying to offer some units for sale on the open market.

Mr BILLSON—In using the word 'offsets', you are using it in the most general sense. As I understand what Ross is saying, you would actually create a new value that has a life of its own that you can sell in the marketplace rather than create something that only has a value to an emitter to discount their net emissions.

Mr Holloway—It can only be consumed once. It is a little bit like buying a bottle of wine: the wine will have the asset until you consume it. It is only consumable once; you cannot, in a sense, keep using it.

Mr BILLSON—Under your unit model.

Mr Holloway—That is right.

CHAIR—Would the assessment process be a self-assessment process? It could become very bureaucratic if you are going to go and measure, because every block of land is going to have different growth rates.

Mr Holloway—That is absolutely correct. This is where we are suggesting that an accreditation system needs to be put in place which would have some ground rules and would have some rules by which people who become accredited for certification and verification would need to be qualified and agree to adopt a code of practice, and there are various ways of specifying that.

Mr Blair—We combined that with the use of default rates similar to depreciation rates in the Income Tax Assessment Act. You could say, all right, in relation to a certain scenario which repeated itself quite frequently, the rate would be this particular rate. Then that would perhaps be verified as an auditor would verify company documents; very similar to that. That auditing process or verification process would not need to occur more than once every, say, five years. That can be added to it, we think.

Mr KERR—What sorts of values are we talking about here? One of the things that people raised with us earlier is not trying to build too much in terms of system costs into any trading system. What sort of value do you see sinks being able to achieve in terms of carbon removals? Have you done any mathematics?

CHAIR—It is a good question, because the practicalities of it are that it is has got to be in a competitive system for land use. I have heard the statement before about increasing Australia's forests by 30 per cent, but, unless there is an economic driving force there to do that, why would you grow trees for a sink rather than grow barley or run sheep or run cattle?

Mr Blair—There are a lot of good commercial reasons; otherwise people would not grow trees at all. What we are saying is that this is an added value to the people who do grow trees on a commercial basis. It also takes into account those like municipalities and statutory agencies which grow trees for a decorative purpose or whatever. So I think there is always going to be sufficient justification for the growing of trees quite apart from this.

CHAIR—A 30 per cent increase in Australia's forest?

Mr Blair—I do not know.

Mr Youl—Threefold. This would be across thousands of properties. We are talking small increments on some properties, some properties would turned over to full-scale forestry and some would be bought by afforestation companies. It is happening as we speak. There needs to be a range of programs, from joint ventures with industry to programs to encourage individual landowners.

CHAIR—Some of these programs are artificial at the present time; they are not on an economic basis. For instance, in New South Wales there are plantations going in but the price being paid for land is so exorbitant you will never get a return off it. So that will not continue. It might be for a short-term basis but it cannot continue.

Mr Youl—I wonder why the company needs to buy the land.

CHAIR—It is not a company, it is the government.

Mr Holloway—We cannot answer that question, but what we can say is that, if there is a market in carbon credit which is accessible at a project level, it will actually add value and add an incentive, and a commodity, if you like, to the suite of commodities that are being produced from the growing of trees.

That includes for the first time actually adding a commercial value to environmental plantings. So far, environmental plantings these days are done purely for water quality, biodiversity, habitat, amenity and related things, which have quite an indirect connection to economic value, whereas the carbon accrediting of that will actually add a potential direct value, but without harming the management or the reason why you put them in in the first place.

Mr KERR—I am not trying to knock this. I am just trying to work out some practical operational questions. It seems to me that, given the amount of carbon you can sequester through plantations and through woody weeds, it is possible that you can change the economics and dynamics of land use in Australia. The problem I have got at this stage is that an operational system still seems an awful long way away. It is easy enough to imagine it for North Forests, or something like that, which put in another 200,000 hectares of land under forest production. You can see the change of land. Norths is a large enough entity to audit and to expect to go through all those processes.

When you say that it will change the economics of environmental planting, if that is on private land and land changes hands quite frequently, then small changes here or there just seem to me to be very hard to account for, and probably more trouble than they are worth in some ways. I just wonder how this all fits together.

Mr Blair—Legally, because the land changes hands that does not mean that the trees change hands. The model we have put up is entirely based on the Victorian act where tree ownership is quite separate from the land. That is the way we would see it as continuous. That is quite different from what has occurred anywhere else in the world. So far as the recording of it is concerned, it is recorded in the titles office, so it is not such a difficult job. The only thing then, as Roger will now say, is that every so often there has to be an audit to make sure the trees are still there. They are still owned by the same person. You can see that from a search in the titles office which can be done through your computer. That will continue no matter who owns the land. The only thing then is the actual existence of the trees. That would have to be verified and that is a cost that has to be borne. It is a commercial matter, I would have thought.

Mr Holloway—That is one dimension and the other dimension is the level of aggregation of small scale projects and plantings. I mentioned before that we would like it to work down to a pretty small scale—

Mr BILLSON—Five to 10 hectares.

Mr Holloway—Yes, but we would recommend in those circumstances that there would be a service of aggregation that occurs, say, at municipal level. This afternoon there will be a presentation by the Shire of Melton which will be addressing the possibility of municipally based aggregation services. Regional plantation committees, catchment management authorities and other organisations have the capacity to deal with a raft of small landcare groups and hence we are coming together as a landcare organisation and saying that, across the spectrum of participants in landcare activities, a service can be provided to undertake that aggregation and make it, in a sense, the equivalent of your North Forest products or larger scale player, but by virtue of the aggregation of many ownerships.

Mr Youl—I would just like to add that there are some regional successes to build upon. If you have been lately to the Western Australian wheat belt, it is incredible there. There are six Alcoa demonstration catchments that are very good but, when you are travelling between those catchments, you still see hundreds of thousands of trees being planted on the salty parts of the landscape—the lower parts of the landscape. It is extremely inspiring. In the wheat belt and other areas, there is also an interest in what we call alley farming. It is a bit of a misnomer but it is really an in-paddock shelter system which has an effect on the regional watertable and also increases crop yields because of the shelter that is provided. It is a long-term process. I started in this area in 1981. I have seen huge changes in that decade and a half. We are just sort of building it. It will not happen overnight, but there really are some very good regional successes to work on.

Mr KERR—One thing that we need to think about is whether you need to accredit aggregated bodies. They can then make commercial arrangements with others, but they then take the responsibility of ensuring that there is long-term management. One of the issues is that if there is change of ownership and things like that, you may say that the ownership of the trees stays, but if you are saying that this has made a structural difference, with the move from unwooded land to wooded land, and therefore there is a net subtraction of carbon from the atmosphere because of that, and you want to have it accredited so it does not make our own systems too implausible for those who will be looking at them, you would need to have some long-term manager—you would have to have a manager who is going to be there in perpetuity.

Mr Blair—I would have thought that that would be very easy. What I am looking at at the moment is an agreement whereby this occurs. You effectively have a trust which will take over any number of these. Because it is not altering the land ownership—because it is registered on the title and therefore continues and the farmer is able to do what he

likes underneath the trees and the trees simply stand there—you could envisage one corporate entity, presumably, managing, owning, controlling or whatever, hundreds of these. If there is some form of accreditation that flows from that, then so be it. In the submission we spoke about accreditation on public land and accreditation for statutory corporations like Landcare dealing with and owning trees on private land for which they could sell off the sequestrational rights as a self-funding type of arrangement.

Mr KERR—Can I briefly look at the other side of the equation. One side is that you get paid for growing trees. Normally on these things there is another side which says that if you knock them over you are actually an emitter. I am a bit scared about that for a whole range of reasons at the farm level. It seems to be a fairly unbalanced situation of getting credit, but you have still got unregulated land clearing. If you are working out something that puts an economic driver into the system that only drives in one direction at the moment—it does not put a penalty on unregulated land clearing—I know you have put it in there, but I am deeply sceptical of that model. It is basically saying, 'I've got a lawful right to do this but now I have to pay an additional tax penalty in relation to carbon emissions.' How do you work this out? Maybe we just have to toughen up the regulatory framework on land clearance.

Mr BILLSON—It might help to say that the Queensland plantation sector were arguing that what you are saying would apply on cleared land, but if you were clearing land you would have to—

Mr KERR—Get a licence and pay for it.

Mr BILLSON—Yes. Or you would have your value discounted by removing what might appear to be an uneconomic mixed species but still an ecosystem, to replace it with a homogonous monoculture that may have a higher yield at the end of the day but there is a need to recognise that you have lost something to achieve it. That is the model that they suggested.

Mr Holloway—We need to watch the implications of introducing a market system and its impact on aggregate behaviour. Once there is an incentive on a carbon growth and storage side, people will start to take that into account in their investment decisions, including the timing, the length of rotation of any particular crop, whether they want to improve their management in such a way as to upgrade their productivity and storage of—

Mr KERR—I must say that I can see some dangers here. If you can just put a chain between two D9s and knock over your scrub and then five years later come back and say, 'Hey presto! I am going to get from ground-up barren soil all the credit for planting a new forest,' I suspect that we may have some quite surprisingly bad results. It would have to go either with a strict economic pricing system for land clearance or stronger regulations—one or the other.

Mr Holloway—Or the market incentives to grow vegetation. However, the baseline issue, which I think is what you are talking about at the start of your comment, is to take into account the vegetation that existed at 1990 or post 1990 for that matter and only look at the gains beyond the 1990 measurement. Whether that is done by aerial photographs or some other technique of establishing what the history of land use is, that is going to be one of the important factors to take into account in a crediting system.

Mr ROBERT BROWN—If you have separate ownership of the trees and the land, who earns credits for the planting of the trees? If it presumably is the tree planter and the tree owner, what type of credit accrues to the landowner who, in the process of those trees being planted and taking up the land, loses other productive capacity and therefore incurs some type of monetary loss?

Mr Blair—The agreement which is registered on the title has to be made effectively between the landowner who grants it in the first place, the person or persons who are actually going to grow the trees and the sequestration rights owner. They may all be one and the same person. Two of those categories may be one person or whatever, but there is an agreement that covers those three classes of persons. Therefore, they work out on a financial basis exactly what each gets. The sequestration rights owner, I would imagine, would have to put in money and that money would most likely go to the landowner. But, again, that is a commercial decision that they will all make and they must all make before the agreement can be registered.

Mr ROBERT BROWN—That is at the credit building end. At the other end, when the forest or any particular stand of trees is felled, who then is debited? Is it the tree owner, the cutter, the retailer, the timber mill, the house builder, or the fire lighter?

Mr Blair—It is just the same as if you and I bought a pig and we raised that pig from a little piglet to a big pig on the basis that at the end of the day you would have the bacon and I would have the trotters. That is exactly the same thing in this agreement. The agreement will determine within it—and it will be recorded and it is on the title—who is going to own the fibre of the tree when it is felled. It will also say when the felling will occur. So that is all pre-determined and pre-agreed and it is the market structure.

Mr ROBERT BROWN—It has not appeared to me that there has been any consistency between various types of industries in the adoption or the application of the principles that might be applied to determine, for example, who is incurring the debits and therefore in need of credits to compensate?

Mr Blair—In the submission we made we separated emitters from sequesters, so that if an emitter wanted the benefit of sequestration rights the emitter would have to buy in as the sequestration rights owner—either he bought in or a trust bought in and he bought rights in the trust or whatever. There would be ownership, so the emitter would own the sequestration rights.

Mr ROBERT BROWN—As a simple example, there is the same connection with the felling and the utilisation of the timber. Once it gets to a certain point the timber can be used to build a house where there is no emission of CO_2, or it can be used for firewood where there is. At what point and in what way would that type of problem, on a more substantial base, be resolved?

Mr Blair—Our argument was that the sequestive obligation ceased when he disposed of the product. So, when the trees were felled and he disposed of them, that was an end of it so far as he was concerned. If he was also a firewood merchant, then in his capacity as a firewood merchant, selling off firewood, he may be deemed to be an emitter. I do not think so. I will change that a bit, if I might. If he were using that timber to fire his furnaces, then he would be both a sequesterer and an emitter. But the two, I think, must be kept separate, and the obvious place for separation is at the point of sale.

Mr Youl—However, we are hoping that, in creating an economy for the vegetation management and forestry, that emitter-sequesterer would immediately revegetate his land and a new crop would come along.

Mr Blair—That would be part of the agreement, if the agreement were that there would be more than one harvesting of those trees, if they would grow a second or even a third time. That again is contained in the agreement, as are the guidelines. That again is recorded and can be verified and audited at any time.

Mr Holloway—Further to that, if the unit is sold, the saleable component of the carbon credit refers only to the historic uptake of that carbon into the wood and the time before it was so disposed—in other words, it is 'historic' from today backwards to 1990—and you are not selling what might happen, some implication of storage or whatever beyond that point of sale or that point of accounting. So there is no liability then to the growth and storage achieved during the period 1990 to 1997 inclusive that attaches to somebody who might do something different with that wood in 2002—like burn it.

Mr ROBERT BROWN—This is quite a complex area, isn't it, with identifying ownership, credits and debits and so on.

Mr Holloway—Yes, it is.

Mr McDOUGALL—I have a question which I would like you to answer in writing, if you would not mind. It comes back to the basis of the environment. We are talking about planting trees to get rights, to get value back out of a planting. Who sets the type of tree that should be planted and the value of the tree, respecting the right that it takes to grow?

Obviously, if a tree is going to grow and absorb a lot of carbon dioxide in a very short period of time and then be harvested—I do not know, until you set up the regime—it

may be more valuable than planting a forest that takes 80 years to grow and a longer time to absorb. Are we running into a danger of who is going to select the types of trees we should grow?

Also, if we go into this mass planting in a massive way of reafforestation across Australia, are we going to introduce into Australia a whole new range of trees that were not part of the indigenous tree structure ecologically that was here? How do we find the balance?

I do not want you to try to answer those questions now, but I think you are the people who can possibly answer those best. Then, if we get that principle right—and where do those values lie, in what sorts of volumes do they lie—then, and only then, can you start putting a value on that credit that is being given.

Mr Youl—In about three sentences I reckon I can answer that. I see a broad framework of revegetation across the countryside of indigenous species. The Landcare movement is committed to restoring indigenous vegetation, including ground flora. It has a very good record. It is an example for other countries.

If economics comes in with a special species where it is being farmed more like such things as barley and cattle, then you actually need a higher degree of management. You also need to look at the problems of woody weeds, as someone else has mentioned. But, in the main, you are going to get rather more intensive forestry techniques which should also prevent genetic pollution, which can happen—it is so big an area. You are right, you unleash all sorts of problems, if I could talk at length.

But, in the main, the Landcare movement is committed to indigenous species, and I see this broad framework. Where you have more intensive management, you may get other species. I think they are likely to be Australian. I do not think there are too many opportunities for bringing in trees from other countries. Sure, we have radiata pine, we have Monterey cyprus, we have blue gum—which is not universal in southern Australia. However, we need a framework to work under.

Mr JENKINS—I would like to make a quick comment and ask just a very quick question. I think the Landcare movement, because it is based on regional catchment plans, really gives a lead in those sorts of areas. Anything that is done for environmental purposes, you are now saying, because of the sequestration, that you can get an added economic impetus to it. But I think what we really have to look at is that Landcare has always been based on catchment management plans and things like that, so it surrounds that. That gives the lead then for the aggregation between small holdings.

My quick question—and you might have to take this on notice—is: one of the issues that has been raised is that there is likely to be international trade in carbon sinks and the sequestration; if you then have that as a commodity, what things would we have

to look at as a regime because of foreign ownership questions or international trade? I do not know whether we need to have that answer right now, but you could get back to us on that.

Mr Youl—Regional catchment plans are a very important part of it. Could I just say too that we want everyone to be involved in greenhouse matters. There are three million people in Melbourne who are greenhouse emitters. We feel that Landcare, with its various activities, takes city people out into the countryside and also improves land use in cities. So I will leave you with that thought.

CHAIR—Mr Youl, Mr Holloway and Mr Blair, thank you very much. It is proposed that the papers titled 'Legal ownership of carbon dioxide sequestration rights' and 'Statement to the House of Representatives' by Mr Blair be accepted as exhibit No. 4. As there is no objection, it is so ordered. Mr Blair has proposed that paragraph 321 of Landcare Victoria's submission be substituted with the points listed in Mr Blair's statement which has been taken as exhibit No. 4. As there is no objection, it is so ordered.

Proceedings suspended from 12.59 p.m. to 1.36 p.m.

KINRADE, Mr Peter, Consultant, Australian Conservation Foundation, 340 Gore Street, Fitzroy, Victoria 3065

CHAIR—Welcome. We have received a late submission from the Australian Magnesium Corporation, and we have authorised it for publication. We have received a submission from you and have authorised its publication. Do you wish to propose any changes to that submission?

Mr Kinrade—No. There are two or three typos but I do not think they will be particularly problematic.

CHAIR—I now invite you to make an opening statement.

Mr Kinrade—Thank you for the opportunity to present, on behalf of the ACF, our submission on this issue. I think it is a timely inquiry, considering the status of events in relation to addressing global greenhouse gas emissions. You would all be aware that, as a result of the outcomes from the Kyoto climate summit at the end of last year, the world is moving towards a situation where there are long-term efforts to address global greenhouse gas emissions, and it is important that Australia stays in touch with what the rest of the world is doing on that stance. So, again, I think the inquiry is quite timely in that respect.

ACF does not, as yet, have a detailed policy position on the issue of trade or emission permits, both in their application to the greenhouse issue and also more generally in the environmental application. It is a very complex area and policy development is a time consuming matter. I preface all my comments by saying that it does not necessarily represent a detailed policy position but it does represent our initial thoughts and views at this stage.

Notwithstanding the fact that we do not have a detailed position, we do, at least in principle, support the concept. Certainly, if they do achieve long-term environmental outcomes, particularly in a cost-effective manner, then trade or emission permits are potentially a positive way of moving forward in terms of addressing both the greenhouse issue and other environmental problems.

My other initial comment is that I certainly do not believe that we are likely to see a rigorous and, I guess, properly formulated emission's trading scheme, particularly at the global level, for some years yet. But, in the absence of that properly formulated system, it is almost certain that some sort of de facto systems will start to be put in place, both at a domestic and international level. Also, a certain amount of trading will probably happen in a de facto way over the next few years in the absence of a properly regulated system.

Given a lot of the complexities of the issues, and some of the many uncertainties in terms of emission levels, monitoring, verification, et cetera, it is important in the absence of a properly regulated system at the international level, that domestic

governments, at least, try to put in place some guidelines to ensure that the system does not get off the rails from the outset. Therefore, again, this inquiry is quite timely in that respect.

The major objective of any trade or emission scheme, whether applied to greenhouse but also to other issues, should be environmental protection. That long-term objective should always be at the forefront when setting up any sort of trade or emission scheme. Obviously, the economic efficiency aspects of the issue are important, and that is a major reason why it has been proposed around the world over the last few years as a means of addressing greenhouse and also other pollution issues, but the primary objective that should always be kept in mind is that it is to achieve environmental protection.

In terms of greenhouse, we are talking about substantial long-term emission reductions at the global level but also, hopefully, in Australia, over decades. To that extent it needs to be noted that the targets agreed at Kyoto would represent only an initial step towards the long-term environmental objective as set out in the framework convention on climate change. For any examination of trade or emission permits in the context of the Kyoto targets, always keep it in mind that the Kyoto target is only a first step. We are talking about far more substantial emission reductions over the next few decades if we are to achieve the major environmental objective of protecting the world's climate system.

Bear in mind the fact that we are basically talking about an open-ended issue at this stage with no real guidelines for rules established either at the international level or within Australia. What I will talk about here over the next few moments is essentially some guidelines that may represent the initial steps towards establishing some rules both within Australia and internationally.

If trade or emission permits are to play a major role in achieving long-term greenhouse gas emission reductions both internationally and in Australia, there needs to be some firm rules established at the domestic and at the international level. Bearing in mind that I said I do not believe an international fully regulated international system is likely to be in place for a number of years, it is important that Australia plays a major part in helping to formulate those rules and guidelines. Trying to set up some guidelines at the domestic level is probably the first step towards that goal.

I might just quickly go through some of the rules of trading that at least initially we believe need to be addressed as part of any domestic and international trading system. I will go through some of those. The first one that I have set out in our submission covers the whole issue of who can trade in carbon credits or carbon quotas. It is quite clear at the international level, because of the framework convention on climate change and the Kyoto Protocol which contains quantified and legally binding targets, that it will be the responsibility of national governments or parties to ensure adherence to any trade or emission permits scheme.

At least at the international level the initial responsibility would rest with national governments. On the other hand, at the domestic level and to some extent at the international level, much of the trading is likely to be carried out by not only governments but also industries, industrial sectors, and in some cases even private individuals.

The whole system of setting up rules about who can trade and how they can trade must be clearly formulated. Later on I will go through the whole question of trying to achieve an interface between the international and domestic phases of emissions trading, and the fact that most of your trading, particularly at the domestic level, is likely to be undertaken by industries, but much of the responsibility for ensuring adherence will fall to national governments.

In terms of who can trade at international level, a first suggestion would be that only governments which are subject to legally binding targets or quotas should be permitted to trade. Similarly, at the domestic level, only parties subject to regulated targets or quotas should be permitted to trade in a regulated trading system. I would suggest that, unless you do have all parties to a trading system subject to quotas or targets, there is potential for major loopholes to occur and to be used to avoid achieving real long-term greenhouse gas emission reductions.

Mr BILLSON—Mr Kinrade, we have all read your submission. It may be of more value for us to talk about it rather than go over it again. We could talk about some of the ideas. We might get more value out of that.

CHAIR—It might be better to explore some of these various briefs, particularly in the area of trading we are touching on there. On trade, I think I have got from your comments that you believe that if, for instance, the Australian Conservation Foundation wanted to buy carbon units, they should be able to do that.

Mr Kinrade—No; what I was basically saying was that those parties who are going to engage in a trading system, whether it be at a domestic level or at an international level, should be subject to targets or quotas. That does not exclude the possibility of third parties being brought in, with those third parties not necessarily being subject to targets or quotas. They would not then be engaging in trading as such, but rather would be contracted to provide that as a third party through investment by the parties actually involved in the trade.

CHAIR—You are not arguing an open market; you are arguing a controlled market.

Mr Kinrade—Yes, definitely.

Mr BILLSON—It is only open to those with some liability and some responsibility for trade.

Mr Kinrade—But, as I said, it does not exclude the possibility of third parties being brought in—

Mr BILLSON—As agents.

Mr Kinrade—As agents or, alternatively, through a contract being undertaken with one of the parties who are subject to the target engaging in a contract by, for example, investing in carbon emission reduction programs with a third party.

CHAIR—You also said that you believed in international processes government to government.

Mr Kinrade—No, I would not necessarily say it should be government to government. I would suggest that, under the guidelines set down already under the Kyoto Protocol and those that are more likely to be established in the future as well, the final responsibility for adherence to both the protocol and to any emission trading scheme set up through the protocol will rest with the national government. So the buck will stop with the national government. That establishes problems if you then have other parties, whether individual companies or individuals, establishing a trading system. There is a whole question of how you achieve interface where the national governments are the ones who are ultimately responsible for adherence and ensuring that a tradable scheme does work, yet much of the trading could potentially happen between other parties. How you achieve that interface is a key issue.

One of the things that I place a lot of emphasis on is the need for a very rigorous monitoring, recording and verification program, both at the international and the domestic levels. That is particularly important if you are going to achieve that interface between national government responsibility and trading.

CHAIR—Couldn't it work in tandem, though? Obviously we have set ourselves a target at the present time, so that even an individual company which might be wanting to trade on solar energy or solar cells into a developing country and reduce the emissions in that country would gain credits. The amount of reduction in greenhouse gases could come off Australia's quota but they would have the value of the credit.

Mr Kinrade—You are right in one sense in that it could. I guess what I am talking about in terms of achieving that interface is the trading happening jointly—government to government, industry to government, government to industry or whatever.

In the particular example you raise, though, under the guideline that we suggested should be in place, and that is that all parties to a trade should be subject to a target or quota, that would not happen. A developing country is not subject to a target or quota so we would at this stage certainly exclude developing countries as being part of a trade or

mission program scheme. Certainly my understanding of the guidelines set out in the draft protocol is that the trading scheme excludes developing countries.

CHAIR—That is the real benefit of a trading scheme: yes, developing countries are excluded because obviously they do not have the money to comply with these types of regulations, but the developed country which needs to get some credits can go into that country with technology which will reduce the emissions. A lot of the generation in some of the developing countries is very poor. So they can get credits for that and in the overall world scene it reduces the emissions.

Mr Kinrade—The problem is that without a target or quota in developing countries you do not know that you are going to be achieving actual real reductions in emissions unless all the parties involved are subject to quotas. Australia could go into a developing country and invest and claim credits for achieving emission reductions but because there is no target or quota in the developing country you do not really know whether or not the credits being claimed are actually achieving reductions below what would have happened in any case. You need a benchmark.

CHAIR—You are saying that a measurement of it in that country is needed.

Mr Kinrade—That does not exclude Australia or other developed countries undertaking greenhouse emission reduction in developing countries—in fact there are specific broad guidelines set out in the protocol for doing that through mechanisms such as technology transfer and a new funding mechanism—the name escapes me—which is also being established and which will allow for such programs to take place. It will not, as I understand, allow emissions trading between a developing country and a country such as Australia which is subject to a target. I believe that that is the correct way to go.

CHAIR—Considering permits within Australia, we will have to assess what emissions we have so as to determine what permits are given. What would you see as being the more favourable approach: these emissions be given a permit and we reduce the level on a yearly basis or that they be sold at an auction or that they be—

Mr Kinrade—I do not have any particular view on how the initial allocation should occur in terms of whether it is done through an auction or through initial permanent allocation based on, for example, current emission levels. Allocation based largely on current emission levels—you would need a lot of details about how you would actually do that—is probably the preferable way to go. The auction process has potential, I would have thought, for particular industries or companies to establish monopolies in carbon credits. That could be a major problem and would require additional regulations if you were going to do it through an auction process.

Having said that, the major criterion by which you would determine the initial allocation of the domestic level would probably be what the allocation is to Australia at

the international level. You could say that that has already happened through the target established through the Kyoto Protocol. I have certainly argued in the submission that that could well change over time—it is only an initial allocation. The Kyoto Protocol is only an initial step. Also, the allocation process, if you like, at the international level through the Kyoto Protocol was pretty ad hoc to say the least; it was pretty much done through a horse trading exercise. So it may well be that further down the track there will have to be more clearly delineated rules established at the international level as to how carbon quotas are allocated. Once that is done that will play a major role in determining how allocation will probably occur at the domestic level.

Added to that, governments at either the federal or state level could, if they wanted to, set up quotas for particular industries. I would argue that because of uncertainty in certain emission sources and administrative difficulties it is most likely that any domestic trading scheme would initially at least apply mainly to large point emission sources. So we might be talking, for example, about the electricity industry, the retail end of the electricity industry, as is happening in New South Wales at the moment, or major energy users such as the resource intensive industries.

That is most likely where any sort of initial permanent allocation at domestic levels is most likely to be feasible, within the next few years anyway. It is less likely to be feasible from an administrative point of view just in trying to track in terms of monitoring verification, reporting and so on. It is going to be much more difficult to try to do any sort of allocation or auction process to all takers, if you like.

Mr BILLSON—Just on the issue of the constraint on the market participants in the trading scheme, it is interesting that you are advocating the need to be a stakeholder before you can trade. A lot of the industry sectors are terrified of the exact opposite happening and are arguing it from a different point of view, that third parties perhaps with purely an environmental agenda, or something like that, as has happened with sulfur dioxide in the US, would buy up permits to bring about a faster rate of performance improvement in environmental terms. I was surprised when I read the ACF's position that it did not leave that option open. Could you talk about how you arrived at that decision?

Mr Kinrade—Again, the submission does not exclude the possibility of third parties. I suggest to you that—

Mr BILLSON—Are you saying as agents in your earlier comment, rather than in their own right?

Mr Kinrade—Yes, that is right. Again, it is because of the verification and monitoring problems. If you look at the sulfur dioxide issue and compare that with the greenhouse issue, in terms of source of emission, the coverage of emissions and monitoring of those emissions, it is a far more complex issue than sulfur dioxide. With sulfur dioxide, essentially you are talking about a few major point source emitters, whereas

greenhouse gases, whether you are talking about CO_2 alone, or all greenhouse gases, it is pretty much universal. It is a far more complex and difficult process, particularly if you are talking about monitoring and verification. The more parties you bring into it, in terms of involving a trading process, the far more difficult it is going to be in ensuring compliance and ensuring that the trading process is actually achieving real emission reductions.

Mr BILLSON—A complexity argument, is it?

Mr Kinrade—It is mainly a complexity and a verification issue. I guess I do not have any problem in principle with anybody being involved in it in a trading process but, at least initially, until you have got the scheme up and running and know that it actually works, to open it up to all comers could be courting major problems.

Mr BILLSON—You also mention gas specific trading, rather than bringing everything back to, say, an equivalent carbon unit, or whatever the case may be. Is that for the same reason?

Mr Kinrade—That is the same reason. Again, because of the complexities in the issue, particularly in relation to some greenhouse gases where there are still major monitoring problems and major identification of—

Mr BILLSON—And values like methane.

Mr Kinrade—That is right, yes. Again, I would have suggested it is mainly administrative, ensuring that you are actually achieving environmental objectives. That is the major reason I am suggesting limiting it at this stage, rather than having any fundamental in principle objection to the idea.

Mr McDOUGALL—You raised the issue that strong guidelines should be established in relation to sinks so that may attract credits when credits are allocated. We were talking earlier today to Landcare Victoria. My question to them was—and I will give you the same question—how do we determine the value of a sink depending upon what you grow in that sink and the commercial viability of what you grow, and the danger that we may end up introducing into the Australian biodiversity a range of product in timber in some areas that was not naturally there and we end up with a false sort of a vegetation process? How do we set those sorts of guidelines? Who sets it and who has the recommendations?

Mr Kinrade—In terms of who sets the guidelines, I have not got a particular view on that at this stage, except it is suggested that there needs to be some sort of regulatory agent involved in the whole process if any sort of domestic scheme is set up. I would have thought that regulatory agent would have some role in establishing the rules or the guidelines.

In terms of the discussion of the whole issue of sinks, you are exactly right: there is the potential for quite perverse outcomes in relation to sinks if the whole system of determining how and when sinks measures can attract credits is not properly established right from the outset in terms of proper rules and guidelines. I mentioned one particular case in our submission. If there were not strong rules and guidelines, you would have the potential for a situation like what happened in Queensland. Everyone is aware of the issue of woody weeds infestation in Queensland on previously cleared land. You would have the potential of somebody not clearing the woody weeds, claiming credits for it and going ahead and clearing an area of high biodiversity value in a nearby region. That would achieve no net benefit in terms of greenhouse emission reductions, but somebody would be claiming credits and there would also be some adverse biodiversity ramifications.

You are absolutely right. There needs to be clear guidelines established right from the outset, particularly in relation to sinks. One of those, we would suggest, is that we would have major problems with anybody receiving credits merely for protecting existing vegetation, as opposed to establishing new and additional vegetation sinks. That would be one major concern we would have. The other one we mentioned is that credits for sink measures should only occur after those sinks have actually been established, not beforehand. If you like, somebody cannot claim a credit for future sink capacity of newly established vegetation. They cannot claim the credit until it actually occurs through the process over time.

Mr McDOUGALL—Should those credits then be tradable?

Mr Kinrade—Again, it depends on the particular guidelines that will be established. One of the guidelines is that those credits will only be established if you are talking about new and additional sinks. Those could possibly be traded. Another guideline which needs to be emphasised is the biodiversity protection. The rules should be established to ensure that people cannot claim credits for undertaking sinks measures which actually have adverse biodiversity implications.

Mr McDOUGALL—Will the ACF put out something a little more detailed in this area for us to consider?

Mr Kinrade—I cannot say.

Mr McDOUGALL—We are looking for some guidelines. This thing is all about learning, and I think everyone who is coming before us is in a learning process. It is one thing to say what we should do, but it is another thing for us all to get together and help to achieve something. If that is to happen, we all need to contribute. There is nothing worse than getting a contribution and making a decision and then, at the end of the day, you find someone who was not part of the contribution wanting to pick holes in it.

Mr Kinrade—It depends on our resources more than anything else, as to whether we can devote more time to it.

Mr EOIN CAMERON—Basically, in support of what Peter is saying and if it is any use to the committee, there is an example in Western Australia, and I presume there are examples all over Australia. In Western Australia, there is an area called Denbarker, which is where I spent part of my teenage years. My parents moved to a soldier settlers farm there, which was cleared in the very late 1940s and 1950s. I think there were something like 17 farms, but not one of them remains. They are all now blue gum forests or vineyards. Blue gums are not natives to that area—they are all jarrah forests around there—and certainly, vineyards are not natives. I support the fact of sinks, but of what value?

Mr Kinrade—There is, in a sense, a slight environmental conflict there, if you like, but certainly we would be very strongly of the mind that credits should, in the first instance at least, apply only to measures which do not conflict with biodiversity values as well. To add to that, there is a national biodiversity strategy which would probably give you some reasonable guidelines on where we should be heading in terms of that process.

Mr McDOUGALL—You said in reference to term of reference No. 5—and you have already made a comment—that the only entities permitted to trade should be those with legal binding quantified obligations to achieve. What do you do with an industry that has not got the ability to make a contribution of a reduction in the CO_2?

From evidence that we have taken, it would appear that the cement industry is probably in that category. You could close down the cement industry in Australia by putting a penalty on it. All you would then do is have the cement come in from a country that is not bound by the agreement and we would lose part of the economy and employment. What do you do then?

Mr Kinrade—I am not quite sure what you are getting at.

Mr McDOUGALL—I am just going from what you said. I am just trying to see how we deal with industries that cannot achieve or it appears at this stage that they cannot achieve reductions in CO_2 outputs.

Mr Kinrade—The cement industry actually has achieved very substantial emission reductions.

Mr McDOUGALL—But they get to a certain level—

Mr Kinrade—Nobody is necessarily at this stage even suggesting that the cement industry, as an example, should be subject to any particular targets or quotas.

Mr McDOUGALL—I am not saying that you said the cement industry, but you said that entities permitted to trade should only be those which have legal binding quantified obligations to reduce greenhouse gas.

Mr Kinrade—It is one matter, though, to say that only certain parties can be allowed to engage in an emissions trading program. It is a quantum leap then to say that means that all parties should be subject to emission quotas or targets, which you seem to be suggesting is what I am saying, which is not that at all.

Mr McDOUGALL—You are not saying that?

Mr Kinrade—No; of course not.

Mr ROBERT BROWN—When you started to speak, you indicated that the sentiment of the Australian Conservation Foundation is in favour of tradable emission permits but without having clearly defined its position in relation to details. For what reason does the Australian Conservation Foundation come down on the side of tradable emission permits? Is it simply because you see it as a useful type of mechanism to address a practical problem or is it your belief that there is some positive overall environmental benefit likely to result from it?

Mr Kinrade—More the former. I think it is really a matter of saying, 'We have an environmental problem; let's go about addressing it in the most practical and cost-effective way, at the same time ensuring that the environmental objectives are met in the long term.'

If you compared a tradable emission scheme, for example, with a carbon tax, which is another measure that is often being mooted both at the domestic and international level, at least in principle, from an environmental perspective, a tradable emission permit is probably better than a carbon tax because, from an environmental perspective, an essential component of the tradable emission permit scheme is a target or quota system which ensures long-term emission reductions, whereas you do not have that guarantee with a carbon tax. You can bang on a big carbon tax and there is no guarantee that people will actually stop consuming fossil fuels. They might just wear the tax and continue to emit it.

An economist will say that is okay because it is all dealt with in the whole system of how the market works and a trade off, if you like. But, from an environmental perspective, that is really not achieving the objective. If you look at the range of the possible instruments, tradable emission permits is one of those. It is more an all-encompassing type of instrument like a carbon tax, but it is actually more amenable to achieving a long-term environmental outcome than, say, a tax.

Mr ROBERT BROWN—There are some who claim that the likely outcome of this type of approach would be contrary to the objectives that the Australian Conservation

Foundation would be pursuing to the extent that affluent major industries in affluent countries are just being provided with a let-out. They can buy the credits and apply them to achieve the targets that they have been set rather than not having some type of tradable arrangement of the kind that is proposed and simply requiring those industries to meet firm targets.

Mr Kinrade—Again, that really depends on the allocation process, on what sorts of quotas or allocations are applied both initially and where those allocations or quotas go over time. Provided the allocations or quotas are reducing over time, that prevents the possibility that you are not achieving the environmental objectives. In terms of ensuring that loopholes are not used by industries or countries for that matter to avoid their obligations, that really depended on ensuring a strong verification and monitoring process from the outset to ensure that these are companies in a domestic or international trading program or to ensure that countries are not avoiding their obligation by using an emissions trading program in an underhand way.

Mr ROBERT BROWN—How would you build into the system some type of debit arrangement for the commercial destruction of the rainforests in South-East Asia or, more recently, for the impact of the CO_2 emissions from those fires?

Mr Kinrade—The latter would be extremely difficult because I do not think anybody would have a good handle on how much CO_2 has gone into the atmosphere as a result of those fires. People have probably had stabs at it. I doubt whether anybody has a reasonable guess that would be within plus or minus 90 per cent of the true figure.

Mr ROBERT BROWN—In cases like that, the people who are responsible simply do not have the financial resources to meet any type of commitment.

Mr Kinrade—Exactly.

Mr ROBERT BROWN—They light the fires in order to provide themselves with basic subsistence.

Mr Kinrade—There are arguments about who is responsible, whether it is subsistence farmers, the forestry industry or whoever. Be that as it may, it is impossible at this stage to know how much CO_2 went into the atmosphere as a result of those fires. Therefore, it is impossible to include that in any sort of emissions trading program at this stage.

The main message is to start at the easier, simple level with an emissions trading program. Do not be too ambitious to start either at the domestic level or the international level, otherwise you will fall into these problems of monitoring and verification. Because it is such a complex issue in terms of sources and verification of those both in terms of quantity and who is responsible, if you try to bring everybody and everything into it, you

are bound to come up with major problems down the track. So start simply and, once you have worked out that it is working for a particular group of countries or industries, then start to experiment.

Mr ROBERT BROWN—Is this whole program just going to provide an international picnic for the legal and judicial profession?

Mr Kinrade—That is potentially a problem because, again, it is a complex issue. That is perhaps one downside for the whole issue of an emissions trading program. It is not ever going to be a simple mechanism. As I said, try to make it as simple as possible to start with. But it is never going to be a simple. Administratively, it will always be very complex. It will also probably have some major legal issues—loopholes, verification and compliance issues. They are always going to be there. In that respect, tradable emission permits are far more complex than a carbon tax, regulatory mechanisms or any other range of emission reduction measures that you would like to think of. That is the downside, if you like.

Mr ROBERT BROWN—Proponents of the system claim that introducing market based arrangements will simplify it. I think a powerful case can be made to suggest that that is not the case. It might be simpler to have established international central regulatory arrangements which simply determine what is required and then seek to achieve those requirements.

Mr Kinrade—I agree with that. A tradable permit scheme, notwithstanding all the potential positives with it, will never be simple.

Mr BILLSON—The nub of your argument is that what you like about the tradable arrangement is that you have got a net supply cap on emissions, and all the problems that flow out of that are less significant and you can at least put a lid on total output in some respects. With that in mind, how confident are you that we can actually achieve compliance with those caps given that we cannot even all agree on nuclear test ban arrangements, biological weapons and those sorts of things where I thought there was a bit more of a consensus view around the globe?

Mr Kinrade—Are you talking about internationally or domestically?

Mr BILLSON—Domestically is less difficult than international, but looking at the sulfur dioxide example there are those huge punitive penalties that kick in from non-compliance. I am imagining how that sort of stick would be enforced in a global trading environment.

Mr Kinrade—It would have to be set down in strong compliance mechanisms in the protocol itself. That is just not there at the moment. In terms of what is in the protocol, it is very much just a broad statement basically saying, ‘We’re going to have to

have a tradable permit scheme,' and that is about it. So all these things would need to be set out in quite a considerable amount of detail in the actual protocol itself or as an attachment to the protocol before we actually get an international trading scheme up and running.

Mr BILLSON—Do you think, though, that punitive measures would probably have to lie outside the trading framework? If compliance is something we cannot achieve within a trade framework, levers to encourage compliance might need to kick in—trade and those sorts of things.

Mr Kinrade—I am not an international lawyer so I could not really answer that except to say that the compliance mechanisms in the protocol at the moment are pretty much bare bones. There will have to be a lot more work on compliance mechanisms full stop.

Mr BILLSON—I guess my thought was that if the virtue of the protocol itself will not bring about compliance, resorting back to the protocol which lacked that virtue in the first place is hardly going to change the main game.

Mr Kinrade—Not as it currently stands. The compliance mechanisms in the protocol are very weak, so that is a problem.

CHAIR—Thank you very much, Mr Kinrade. We are out of time but, as I said, we will probably be having more discussions on this before we are finished with it.

[2.18 p.m.]

DAVIS, Mr Geoffrey Alan, Manager, Environment Health and Safety Policy, Mobil Oil Australia Ltd.

BAILEY, Mr Alan James, Manager, External Relations, Mobil Oil Australia Ltd.

CHAIR—Welcome. We have received a submission from you and have authorised it for publication. Do you propose any changes to that submission?

Mr Davis—No, but I would like to elaborate on some points in there.

CHAIR—Certainly. You can give us a brief opening statement.

Mr Davis—Thank you for the opportunity to contribute to the deliberations on greenhouse emission permit trading. On behalf of Mobil, I would like to elaborate on some of the points in our submission. Afterwards my colleague and I will be happy to take your questions.

Mobil's views on the Kyoto Protocol are well documented in our submission, but we would like to emphasise that, for the objectives of the framework convention on climate change to be achieved, the number of countries that are participating in the Kyoto Protocol needs to be expanded so that we cover all the global emissions, because changing Annex 1 countries alone will not actually stabilise greenhouse gas concentrations in the atmosphere.

Mobil, as a corporation, has a very strong preference for voluntary actions rather than for regulation. However, if the protocol is ratified and we proceed, then we need economic flexibility mechanisms such as permit trading. There are two others that are mentioned in the protocol, and they are the joint implementation and the clean development mechanism with non-Annex 1 countries. If Australia wants to sustain economic growth as it progresses forward, then probably the joint implementation and the clean development mechanism are of more importance than the permit trading on its own.

There is a reason for that when you start looking at the emissions from some of our growth industries—LNG is one. If we take Gorgon in Western Australia, which is a proposal currently being looked at, the total emissions from Gorgon are likely to be in the order of seven to eight million tonnes of CO_2 equivalent per year. That is about two per cent of Australia's 1990 emissions. To get that level of credits from a permit trading scheme, you need very massive reductions from existing industries within Australia or overseas, or we need to generate very large sinks, additional sinks, for the carbon dioxide.

We must not lose sight of the difficulties involved in establishing an effective greenhouse gas emission permit trading scheme—that is, a system that provides the right

economic drive to those who can actually make a change. Trading, of itself, does not actually abate emissions; rather, it is a vehicle for encouraging those who have the capacity to make the change to actually do so. I think we need to keep that in mind when we look at other mechanisms such as carbon trading or emission taxes.

There are several emission permit trading schemes operating today. The one that has been quoted most often is the United States sulfur dioxide scheme, which has been very successful. These schemes are nowhere near as complex as greenhouse in terms of the range of gases, sources and sinks, and they are not a good example of how practical an emission permit trading scheme will be. It would be much more complex than what we have seen.

In the case of the USA scheme, it was successful not so much because they had a scheme but because there were other factors that came into play. One of the most significant ones was deregulation of the rail systems within the United States. As a result of that, the cost of freighting low sulfur coals from one side of the United States to the other became much cheaper, and a large proportion of their reduction was by changing from one source of coal to another. Their cost did not go up very much; it required no capital whatsoever to do it, apart from expanding the rail systems slightly. With greenhouse, that is not the case. Fuel substitution will not be as cheap as that and could be very expensive for particular industries.

There are a number of principles that Mobil considers should underlie further work in relation to emission trading, and these are detailed in our submission. I will not go through all of them, but I want to pick out a couple. The first one is that any trading scheme must not undermine the international competitiveness of Australia's industry. One of the biggest problems we face is that a lot of the industry we compete with is in the South-East Asian area, and they are not Annex 1 countries, they are not actually subject to any of the targets that Australia or Japan are subject to.

The second point is that any domestic scheme must be run at a national level, not at a state level—and I want to come back to that in some detail shortly. The third point is that the scheme must be able to deliver the objective—that is, be designed in such a way that it provides an economic incentive for those who can make the changes to actually do so. Also, the benefit of participating in the scheme must outweigh the operational costs. We need to be very careful that the administrative costs of the scheme are not in fact more expensive than the benefits that we get from the scheme. The coverage of the system should be comprehensive. It should include all six of the gases, all of the sources and all of the sinks to the extent that we can get them in without making it too cumbersome.

The scheme must be equitable—that is, all parties must bear a fair portion of the burden, including a fair share of burden over time. One of the issues we will have to wrestle with is the introduction of new industries which were not part of the 1990 or 1995 emissions from Australia. Do they have a right over existing businesses?

The scheme must not become a de facto revenue raising mechanism. Auction of permits could simply be one way of raising revenue but not achieve the benefits that we need. We need to have minimum bureaucracy associated with the whole procedure; whether it is government or private enterprise, the same issues apply there.

There are a wide range of issues associated with addressing each of these principles. Mobil commends this inquiry and other initiatives to have a public debate. I do not think anyone at this stage has a workable scheme. We have all got bits and pieces which, once we add them together, hopefully means we will come up with something that will work.

In terms of state versus Commonwealth government, while the states undoubtedly have a large part to play in implementing Australia's greenhouse reduction strategy, Mobil strongly believes that the responsibility for establishing a scheme and administering it rests with the Commonwealth. This is in terms of setting the allocation procedures and in making sure that the scheme runs correctly. From an industry perspective, we do not want multiple layers of government which we have got in so many other areas. It simply adds to the complexity and to the cost.

The design of a trading mechanism will have two operational components. The first is the allocation process and the second is the trading scheme itself. Who operates these and controls them can differ. So we do not need to have the same body operating both of those. Once a scheme is established, I would see the Commonwealth government's involvement in the operation being limited to the allocation of permits and fulfilling Australia's obligations as a party to the framework convention on climate change.

To have a cost-effective trading mechanism, it is essential that the bureaucracy associated with this be minimal and that the trading costs be kept as low as possible. There is a conflict here between having an extensive scheme that covers all sinks and all sources and having a scheme that is not too expensive and will not outweigh the benefits.

The role of state governments should be to ensure greenhouse efficiency of their own government operations and to take responsibility for managing reducing emissions from diffused sources, such as from houses and from transport. If you think about it, all of our public infrastructure comes from the state government in both urban and transport planning. If we are going to reduce the reliance on private transport, there needs to be alternative transport in place, otherwise we will simply see the same consumption and the same emissions, and we will not achieve any benefits.

We do not have a simple answer to the question: how should emission permits be allocated? There is a series of principles which we outline in our submission. However, as I said, it is critical to structure the allocation of these entitlements in such a way that it provides those who have a power to influence emissions with an incentive to do so.

Specifically, I would like to raise one suggestion that has been proposed, which is that emission quotas should only be issued to fuel producers and importers. This will not achieve the objective because there is little opportunity for the fuel supplier to influence the use. If we have to buy permits, transport fuel price goes up a couple of cents a litre. The public will be outraged that their taxes have gone up. In practice, that will not change their behaviour one little bit.

What we need is to change the whole urban infrastructure—the planning, the transport—so that they have alternatives other than using their vehicles or they have alternatives other than using wood heaters. With regard to insulation, let us encourage it in their homes to reduce fuel consumption.

When you think of it, price is a very blunt instrument and to date it has not been very effective in reducing demand.

In terms of where to from here, Mobil believes that, given the number and complexity of the issues involved, it would be very prudent to proceed cautiously but we encourage Australia to participate in the international discussions in putting a framework for emission permit trading together. As a consequence, Mobil suggests that the best approach for the committee is to identify what principles should be applied in these international negotiations so that we have a scheme that is workable, cost effective and will actually achieve the objectives that we are trying to achieve which is to reduce the emissions of greenhouse gases.

CHAIR—Thank you. Do you wish to make a statement Mr Bailey?

Mr Bailey—No.

CHAIR—It is fairly obvious that you are saying you are sceptical about the position with greenhouse at this stage. What did you mean when you said ‘given our present knowledge of greenhouse’?

Mr Davis—In terms of the size it is not clear as to what impact the enhanced greenhouse effect will have. I have attended many discussions and I have found that there is an equal number of scientists who will say that the impact is small and those who will say that it is very significant. There is not consensus as to what the impact will be and therefore how stringent the measures we should adopt at this point in time should be.

CHAIR—I think it is fairly obvious that the jury is still out but on balance most nations have now come to the conclusion that it is probably best that we make some moves rather than wait. Would that not be a fair assessment?

Mr Davis—That is true, and we fully support that. Mobil supports voluntary moves and we are part of the greenhouse challenge program within Australia. Worldwide,

we are looking at ways of reducing our energy consumption for our own processes. Where it is economically feasible to do so people should be improving their efficiency no matter what industry they are part of. We should be looking to do that for domestic use as well.

Mr Bailey—We support voluntary measures and we support measures which make good economic sense. What we are concerned about at this time are somewhat arbitrary caps on emissions which put developed countries, in particular, into the position where they may have to take steps which have substantial adverse economic consequences not only on them but also in turn on the developing nations which depend on the developed world for much of their own economic growth. What we are saying is that we do not think there is enough certainty about the problem at this stage to put ourselves in the position where we are seriously hampering economic development.

CHAIR—Given that the Kyoto Protocol decided that we would make some efforts to reduce greenhouse gases you still seem to be sceptical about a trading scheme. I think you mentioned the developing nations where they are not controlled under this protocol. I would put to you that they probably cannot be controlled because economics are going to come into this. The trading scheme is really saying to developed nations that we want you to reduce your emissions or put some better technology into some of these developing countries and gain credits. Do you not think in the overall scheme of things that is going to have some reductions in greenhouse gases?

Mr Davis—Yes, it will. The issue with technology transfer and reducing emissions in developing countries has been a very sensitive one on the international scene. My understanding is that some of them have actually been reluctant to allow that mechanism even though it would clearly reduce the total emissions. It seems like they want the developed countries to take action, almost to suffer a little bit of pain for the fact that we have a higher standard of living than they do. The clean development mechanism is an opportunity for Australia, as is joint implementation. I think both of those mechanisms may be worth more to us if we wish to have economic growth, particularly if it is in the energy area, so that we can utilise the large reserves of gas that we have offshore in Western Australia.

CHAIR—I was interested in your comment on the generation and liquid natural gas. You seem to be saying that two per cent of 1990 emissions were going to come from that. I was under the impression that gas was going to be a lot better than coal. Is that correct?

Mr Bailey—Yes, it is. Emissions from a liquid natural gas plant come in two forms. One is that there is carbon dioxide in natural gas which needs to extracted, otherwise you cannot liquefy it. The second one is the emissions from the process of liquefying, which is quite energy intensive. But, even taking those two into account, if you look at the carbon content of the fuel and include the end use then in general liquefied natural gas or any form of natural gas is far better than coal. The process of liquefying the gas and transporting it to the consumer has higher direct emissions than simply mining

coal. But, once you get to the consumer point and take those emissions into account, natural gas is far better than coal.

CHAIR—I think you also said that you believe that there were limited areas of reducing the emissions at the present time under a tradable scheme, a trading scheme. How else do you get some incentives into the industry for solar energy, wind energy and other low emission energies if you do not get some tradable scheme there? The people with the powerful vested interests would keep them out, wouldn't they?

Mr Bailey—It is an argument that has gone back and forth, I guess, many times. Some of the major oil companies are intimately involved in alternative fuel schemes such as solar power and in the past in nuclear, although I do not think any of them are involved in nuclear power nowadays. We would see ourselves as being responsible for trying to supply the world with the energy it needs at the most reasonable cost, and there is no doubt that at this time oil, gas and coal—Mobil has no involvement in coal—are far cheaper forms of energy than many of the alternatives that people are developing and trying to progress.

That does not mean there is not a role for solar energy or wind power or tidal power. Clearly there is a role for hydro-electric power; we use it and other nations are using it. But, in terms of meeting the bulk of the energy uses, particularly energy requirements for transportation, which is a big factor in Australia, it is hard to see oil and gas being supplanted in a hurry. There is a lot of work going on to develop alternative technologies for powering motor vehicles and so on and so forth with some major companies' resources being devoted to that. Nobody wants to sneeze at the resources available to the international car companies. But they have not yet come up with something to provide that. So I guess our view is that coal, oil and gas are going to be around for some time yet and, whilst other forms of energy may take an increasing share of the total pool, we do not want to hamstring ourselves with a scheme that really hurts economically.

CHAIR—But then we did not know how to walk on the moon until the Russians put a Sputnik up in 1956, did we?

Mr McDOUGALL—I note Mobil's position. Is your position the same as all your brothers and sisters in the oil industry? Are you all unified in this position in regard to, first, not ratifying the protocol but being prepared to go along with it if it gets ratified? Are you all in the same boat?

Mr Bailey—I hesitate to speak for other oil companies individually. I think the position we have put forward may not be exactly the same as for every other company, but you would need to ask them. Our concern about the Kyoto Protocol is, as expressed before, that we really do not believe that it is going to achieve the end objective if that end objective is to reduce greenhouse gas emissions.

Mr McDOUGALL—Mr Davis mentioned his concerns in relation to the fact that if developing countries are not brought into the scheme of things then you have difficulties. Does Mobil operate on the same standards in relation to emission control in all their manufacturing operations wherever in the world?

Mr Bailey—I would say yes. We do have a fairly common standard of operation around the globe.

Mr McDOUGALL—So you have a standard of emission that you apply to all your plants?

Mr Bailey—We have embarked on a fairly intensive review over a number of years of our own energy usage for the simple reason that it makes sense for us to save the cost of fuel, just as it makes sense to anybody else, up to a certain point—up to a point where the cost of achieving those savings outweighs the benefit of the reduction. We have applied that sort of analysis throughout our refining operations, terminal operations and shipping operations globally to try to make sure that we are operating as efficiently as we can.

Mr McDOUGALL—You suggested that the permanent allocation should be carried out by government in a whole of government approach rather than by the environment department. What do you mean by that? Do you have a hankering that you do not like the environment department or something?

Mr Davis—No, not at all, but a lot of factors need to be taken into account. We talked about a holistic approach. Australia needs to take into account looking after the industries that exist and many other factors. That is not saying that we do not wish the environment department to be part of that, but there are a lot of other factors that make sense in arriving at an allocation.

Mr McDOUGALL—Give me an example. Who else should be involved in it?

Mr Bailey—The Department of Primary Industries and Energy has a clear interest in the ongoing development of energy and the economy generally; the Department of Industry, Science and Tourism has an interest; the Department of Transport and Regional Development has an interest, and so on. Clearly, there are key environmental objectives, but we have other objectives of government that are legitimate and need to be taken into account as well.

CHAIR—So you are saying that there needs to be a balance.

Mr Bailey—Yes. I think the government has to look at a balanced approach. It has some developmental objectives and it has environmental objectives. It has to weigh these up.

Mr Davis—If you take it a little further: one of the directions in which companies are heading in order to reduce emissions is to move away from purchased electricity to cogenerated electricity. That makes a lot of sense, but it creates other air quality issues because it is taking emissions that were basically outside the major urban airsheds, which is where most of the power plants are situated, and moving them into the inner areas. So you are getting less overall emissions, but you are actually putting the emissions right into where most people live. Take cogeneration, for instance—

CHAIR—Are you talking about methane or something like that?

Mr Davis—No. The nitrous oxides that come from a cogeneration plant are one of the precursors of the urban smog that we get. So, on the one hand, you are reducing greenhouse and, on the other hand, you are creating other problems. We need a broad holistic approach in deciding how the allocation should be undertaken.

Mr McDOUGALL—You made an interesting comment that you feel that permits should be for as small an amount of emissions as possible. What do you mean by that? Can you give us an idea of what you mean?

Mr Davis—In one of the papers that was issued—the industry council, I think—it was suggested that 100,000 tonnes or greater would be a unit that could be traded. The problem with that is that that is a very large and coarse volume. A company or a plant may want only 1,000 tonnes in order to meet its obligation. That will be difficult if the minimum tradable quantity is 100,000 tonnes. It also means that you can only ever trade if you are a very large player. What we are suggesting is that we try and incorporate as many energy users and as many emitters as possible in the scheme. If the unit is too big, then you cannot do that.

Mr McDOUGALL—And you said that a permit should be issued for free, not auctioned. What do you do with new players?

Mr Davis—That is one of the biggest issues with this process. I guess the first thing is: are we going to meet our cap with the programs we have got in place, or do we need further reductions? There may already be some space within Australia's cap for new players. If not, then either we have got to buy permits or we have to obtain credits. The feeling at the moment is that there is a certain amount of growth that can be covered within the current allocation.

Mr McDOUGALL—Would you see a benefit in international trading where Mobil could trade between its own plants internationally?

Mr Davis—Yes, I do.

Mr McDOUGALL—Do you think that you should be buying those on the open market, or should you be able to do internal trading?

Mr Bailey—I think both. We would ultimately like to see as flexible a mechanism as possible. There may be opportunities within Mobil's own operations to trade between countries, to balance out on obligations if all countries finish up with initial obligations to meet. There may also be opportunities for Mobil to trade for its operation in one country with somebody else who operates in a different country. I think that either would be desirable.

Mr JENKINS—Your submission goes to the line where 'principles must ensure that there can be banking of the credits'. Should there be a time limit on how long these credits can be stored away to be offset?

Mr Davis—As a general rule, no. If the companies choose not to use their allocation, or to buy credits and not use them, then that is fine. I guess the problem arises if you have got reductions in subsequent periods. It might be a plus eight per cent of 1990, the first budget period, and it might be plus five, or it might be zero somewhere down the track. There is a real problem in coming up with an equivalent value of credits from different time periods.

Mr JENKINS—How long do you think the time periods should be?

Mr Davis—I do not think that there should be a limit on them. A tonne in the year 2005 may not have the same value as a tonne in the year 2015.

Mr JENKINS—There would be a time when we would have to calibrate those—when you go into a new period?

Mr Davis—Yes.

Mr BILLSON—I note in your submission that if there is any claw-back required, for whatever reason, then you would need to be compensated. On the issue of having them initially allocated free, but then asking for compensation, is that having a bit both ways? There is a regulatory framework creating a commodity of new value which would arguably represent a windfall in some respects. You also acknowledge that the science needs to be tidied up. An earlier submission suggested that the overall targets probably need to be wound back over time. How do you feel about the prospect of having the permits discounted over a period of time like a car that runs out on the 300,000 kilometre mark? You have had a fairly good run out of it; there may be a need to re-invest, or re-acquaint, or recalibrate, or put seat belts in when you did not have seat belts in it when it was first out there. Can we talk about that a bit?

Mr Bailey—The initial allocations and making the initial allocations free clearly needs to be done on a very careful basis. We think that the initial allocation is a very important step in this whole process. You want to be doing something which does not give a windfall benefit or significantly disadvantage any individual player. A fair degree of

thought needs to go into how you establish that. Given that you can do that, then we would suggest that you make that initial allocation free of charge. It is not a revenue raising process. As we have said before, it is designed to achieve certain environmental ends.

Mr BILLSON—But down the track our science identifies that, even at these Kyoto outcomes, we may have a climatic change problem. It is like cigarettes: just because you find out they kill you and governments decide that they will do certain things to make them less attractive, you can hardly say you want to be compensated for that, I would have thought.

Mr Davis—The issue there is one of certainty. The industry makes an investment with an expectation of a certain life. If you allocate permits for the expected life of 20 years or whatever, and after five years you say, 'I am sorry, but you have no permits,' you may have no industry.

Mr BILLSON—That is absolutism, and we are not suggesting that.

Mr KERR—I do not think it is improbable that we will have no industry.

CHAIR—But if we allocated 80 per cent and left 20 per cent to be auctioned or bought, surely you would then have to make a considered decision as to whether you would buy those or whether you could get 10 per cent efficiency out of your operation.

Mr Bailey—Withholding a portion of the available pool of emissions to use for new players or whatever is a reasonable position. We are not necessarily suggesting you have to allocate all the entitlements to existing industry. There needs to be some consideration given to how you allow new people and changes in the base levels to be factored in.

Mr KERR—And perhaps a structured withdrawal.

Mr Bailey—That is possible. The SO_2 scheme had a stepwise reduction over time which was known up-front. As long as you know up-front what the program is, then you can plan for it, and you can factor into your economic decision making what is going to happen. The point is, if there is an unexpected change in the rules, then there needs to be some allowance for that.

Mr BILLSON—I am just trying to understand the Shell position and contrast it with the position of Mobil. They seem to have adopted a different approach. I do not know whether it is marketing driven or the good fate of their circumstances or where their corporate headquarters is at, but they seem to have jumped in, and they are into internal measurement and intra-conglomerate trading and all those sorts of things. What is it that differentiates their position from yours, as you understand it?

CHAIR—BP are doing that, too, aren't they?

Mr BILLSON—Yes. I understand a few of them are.

Mr Davis—BP certainly have established an internal trading scheme. I was not aware that Shell had.

Mr BILLSON—They are working on one.

Mr Davis—If you look at the practices within the companies in terms of trying to improve efficiencies, et cetera, there is not a significant difference between the companies. We all have the same drives. I guess the external packaging is a little different.

Mr BILLSON—It is a sizzle, is it?

Mr Davis—If you follow it down there is no real difference between them.

Mr KERR—I am just wondering whether you could work through the issue. You were saying that permits should ideally not be allocated to producers but to users of fossil fuel products. I can see some case for that in plants of some scale where there may be a choice internally to wish to be able to do that to achieve the benefits of trading in whatever savings are achieved, but for the local supermarket or corner store, bootmaker or domestic home, they are not going to be in the market of trading. How realistic is it for you to put that proposition forward? Have you worked through any of the mechanisms that may apply? Do you have some sort of de minimis rule that says, 'Well, some order of scale would be required,' because otherwise what you are suggesting looks pretty impractical?

Mr Bailey—You make a reasonable point. You alluded to it a little earlier in terms of talking about what the role of governments might be in this whole process. Clearly, you are not going to take a trading system down to the individual motorist and give each individual motorist an allocation of emissions and greenhouse gases and so on and so forth which he or she can trade or use or do with what they see fit. That is not going to be practicable. At the other end of things what we are saying is that we would urge you not to focus solely on the oil companies themselves who are producing the stuff or those that are importing it because that would unduly limit the flexibility and the opportunities for meaningful reductions in the system.

Mr KERR—I understand what you are saying.

Mr Bailey—There is a logical breakpoint. I do not know exactly what it is. It would need to be looked at.

Mr KERR—Let's take this as a theoretical construct. Assume the imposition is not on you but on the secondary user. How do they disaggregate out any component that is attributable to you, and then if they pass on something down the stream, how complex does this become? Presumably, most of the people who have ever contemplated this at the most remote remove suggest that it could only apply to first-level downstream users from you. In other words, it may apply to a Ford Motor Co. as a manufacturing company that in a sense opts, elects, to be able to trade because it is a sufficiently large enough entity to do the auditing exercise, to do all this sort of thing. And if it can get better energy outcomes than you can, it makes sense for them to do that.

Mr Bailey—Most of our customers are the next level down, basically. We supply fuel products directly to a lot of organisations. To the individual motorist I guess we supply via a network of service station operators and so on. There is not a lot of fuel consumed in the distribution process. Directionally, what you are saying is right, we do not have a multi-level chain in the process that we need to concern ourselves with. You can capture the bulk of the consumers who are able to make a difference and able to make some value judgments about whether they are prepared to buy permits to enable them to keep on burning a certain amount of fuel or whether they can make other investments and achieve other efficiencies to avoid that cost over time. If you just look at the first level it is fairly wide.

Mr KERR—I was just wondering whether you have any operational proposal. It would help us if you are able to work through how a system could operate that would attribute to producers or to users of fossil fuel downstream, other than yourselves, the cost of the emission.

CHAIR—On the other hand, like the coal, we would like to think the Koreans and the Japanese would pay some of the permit and not us. It is one of those very difficult areas that will have to be talked through.

Mr Bailey—We do not have a position on that at this point.

Mr KERR—But coming forward with a proposition that says, 'It should happen in any way, but we cannot think of how to do it,' does not really help to advance my thinking.

Mr Davis—That is true. I talked about who can actually influence change, and that is where we have to be able to direct it. A lot of the issues to do with urban planning and transport planning rest with the states. If you look at New South Wales, what the EPA and some of the other departments are wrestling with is how to integrate urban planning and transport planning with the objective of reducing total emissions. They have a lot of ways to do it, but they have not worked out in detail how to convince people not to use their vehicles but to use something else, but they are wrestling with that. When it comes to controlling total emissions, they have the various licences that plants in particular, even

the small ones, have to have, and they can use that as a mechanism for controlling total emissions. Greenhouse is no different from other emissions, and maybe that is one of the avenues that could be used.

Mr KERR—That has nothing to do with the design of a trading scheme. I am just trying to work out the design of a trading scheme that—

Mr Davis—This tells you who is going to be the supplier. It is not saying that you go down to the motorist or the householder. In fact, the state government may be the—

Mr KERR—But it has nothing to do with the trading scheme at all. That is about urban design, and it may be a complementary and important measure to adopt, but we are talking here about introducing a trading scheme. Your submission says that it should not be exacted on us, that it should be exacted on the next down the chain. I do not know what you are actually proposing.

Mr Davis—People are saying that it is too hard to go anywhere else and that, therefore, they will simply go to the energy producer or supplier.

Mr KERR—What do you propose by way of an alternative?

Mr Bailey—We do not have an alternative. If we had one, we would have put it in the submission, but it is not an easy question to resolve. It is a question that faces not only our own industry but also a number of other industries as to how that might best happen.

CHAIR—It might well come down to the government having to buy tradable permits on behalf of the users.

Mr Bailey—That is one possibility.

CHAIR—It is a very difficult area and a lot of thought has to go into it at this stage.

Mr ROBERT BROWN—If it is not easy—to the point where it is impossible—to devise arrangements of that kind and, in the absence of any firm and practical proposals coming forward from the petroleum industry, where the concern rests, it is obvious that those people who have the responsibility for devising a future model will devise a model that industry does not want.

Mr Bailey—There is a clear risk that that will happen. I think we want to be intimately involved in the debate and the deliberations to try to sort out an appropriate framework, and an appropriate structure and method for handling it. All we are saying is that we do not have the answer to that yet. This is a reasonably newish science—if it is a science that we are talking about now—and we have not had the time to go into the

intricacies of what may or may not work. We want to be part of the debate in coming up with that solution. We do not have it at the moment, though.

Mr ROBERT BROWN—Has the industry identified, in terms of some sort of priority, the particular fears that it has or the dangers that it can foresee in the development of any type of arrangement concerning the greenhouse gas emissions and their tradeability? Has the industry identified the particular elements it would like that future model to have which would best serve the interests of the petroleum industry and, at the same time, achieve the legitimate objectives of those who are concerned about greenhouse gas emissions and the impact that they might have? Do you know what your most important fears are, and what your most important desires would be, about the construct of the model which is finally developed?

Mr Davis—In terms of fears, I do not think the oil industry is any different from a lot of others and we may end up moving industry offshore.

Mr KERR—What does that mean?

Mr Davis—If you look at the oil refining industry as an example, profitabilities are fairly low. There is no on-shore protection. We are not advocating that we need any on-shore protection but, if we end up with costs that are not borne by our competitors in Singapore or other South-East Asian areas, we may be a marketing operation only for the next few years.

Mr ROBERT BROWN—That is a legitimate response.

Mr Davis—The aluminium industry has exactly the same sort of concerns.

Mr Bailey—In terms of fears, in a broader sense what we do not want to see is a system set up that places our industry—I think other industries would feel the same—at a competitive disadvantage for their operations within Australia.

Mr KERR—I cannot understand the argument here. The truth is, is it not, if you are attributing a carbon tax, that you will attribute it to the imported product or to whatever? So you are going to have that cost imposed on you whether or not you are an importer.

Mr Davis—That is partly true. Refining and purchased electricity have direct emissions, and to the extent that they are taxed or require permits, that is a cost. If you then apply the same principle to the end use of the product, that occurs irrespective of whether or not it is imported. You are correct in that. There is the onshore component which is the production element itself. If the product is coming from a non-Annex 1 country, they would not be subject to those costs.

Mr JENKINS—We have been trying to come to grips with that, but you would accept that the clear-cut thing is that the emitter is the emitter and in the production where you are having the emissions you are the emitter. The question mark is over the end-user emissions. That is what we are trying to come to grips with.

Mr EOIN CAMERON—Which is what my question was all about. You mentioned Gorgon earlier. When does that come on stream?

Mr Bailey—We do not know yet. That project is still under development.

Mr EOIN CAMERON—You mentioned projected emissions from that in terms of 7 to 8 million tonnes. Where does that come into it? Is it in the production of the LNG?

Mr Bailey—Yes. I think about 60 per cent of that amount is taking natural gas out of the ground—producing it and liquefying it.

Mr EOIN CAMERON—Where does the other 40 per cent come in?

Mr Bailey—Most of the balance is CO_2 which exists with the natural gas in the ground. It is so-called 'produced gas'.

Mr EOIN CAMERON—So that is something that you would be responsible for in Western Australia, not for where it is eventually used.

Mr Bailey—That is right.

Mr EOIN CAMERON—I notice that Sid Shey, who is the director of CALM in Western Australia, pointed out that by the year 2020 there will be 800,000 hectares of plantations in the west which would provide a sink for 6 billion tonnes. So you have taken it up effectively.

Mr Bailey—Yes. I guess there is an offset there.

Mr BILLSON—Coming back to the motor vehicle issue, are we saying that trading on its own is not the sole policy tool, that we need a suite of tools?

Mr Bailey—Yes.

Mr BILLSON—Then why could we not, as the government has done, look to generate some improved fuel efficiencies in motor vehicles and accommodate that within a notional emissions allocation within the trading framework? If those measures are ineffective, then you might look to your state transport organisations or to the government itself being the custodian for action in that particular area, mainly to acquire some permit capacity and defray it through fuel taxes, registration costs, or something of that kind.

Surely there are ways of getting the signal right down to the consumer without necessarily having every little car zipping around with a 'climate change compliant' sticker on it.

Mr Bailey—I agree with you. Ultimately, the ideal solution to meeting our requirements on achieving a certain level of emissions of greenhouse gases is going to be a suite of different systems and programs, and so on and so forth. It is not going to be one thing on its own. We have the greenhouse challenge agreement which a lot of industry is participating in and, hopefully, increasing parts of industry will participate in it over time—and it is a voluntary program which I think is very worth while. We need to be careful, if we are looking to set up an emissions trading scheme, how we fit that in in relation to the existing greenhouse challenge agreement, which is voluntary and companies have taken steps on that. We want to make sure that those organisations that have already made some improvements do not get disadvantaged out of that particular—

Mr BILLSON—I do not know what the link is between the octane rate and the emissions. There might be something that you guys could do to help with that task. On the moving offshore issue: surely there is an argument that says that product coming into a annexure 1 country from a non-annexure 1 country needs to have something done to it to bring it into the climate change compliant world. Wouldn't that overcome some of your concerns and at least make the playing field fairer? Is that something that your company has been considering within its internal deliberations?

Mr Bailey—There is certainly scope to cover the situation on disadvantage that way. You can largely address that question that way, I think, with respect to our own individual industry.

Mr BILLSON—And within that trade setting, I then was interested to read that with nations that are not meeting their obligations you are saying we should do something to them but leave trade sanctions and barriers alone. We are sort of running out of options, aren't we?

Mr Bailey—Did we say that?

Mr BILLSON—Yes.

Mr Bailey—I do not remember quite saying that.

Mr BILLSON—In terms of punitive measures, we cannot go back to the protocol because if the protocol were robust enough then you would have achieved some degree of compliance in the first place, you would have hoped. If you then had an approach of, 'Go and buy twice the amount of permits that you need because we can't trust you,' with the units they need, they are hardly going to buy twice the amount they need. Where do you go from there, in your view?

Mr Davis—We were just trying to avoid some fairly quick knee-jerk reactions which, in the end, may not achieve what we are trying to do, which is to reduce emissions and avoid issues.

Mr KERR—If you want the unpleasant truth, if the global enterprise of reducing greenhouse gas emissions is successful then there will be a reduction in demand for your product. That is the brutal reality at the end of the day, so we are asking you to cooperate in a nice project to reduce overall growth in your market—

Mr BILLSON—And enjoy it!

Mr KERR—Yes, that's right. One would not expect an enthusiastic reception necessarily from you, but on the other hand what could be expected is that we design a system that actually minimises any unfair impact on your particular company in that fossil fuel cycle. That is about all you could expect. You will just have to live with the rest as a determination of global policy.

Mr Davis—It is a reality that the demand for oil is not increasing rapidly and it has been for years. Efficiency programs have been coming in for quite some time.

Mr KERR—If we actually implement a tradable scheme, wouldn't that then shift some of your work to, say, greater enterprise in the area of natural gas? Wouldn't it shift some of your work towards looking at some of the renewables? In other words, diversifying yourself as an energy supplier may also encourage you to think of new ways in which you can market your services—perhaps as energy consultants, as do some of the diversified suppliers in the United States. They do not just sell a product. They actually say, 'We will supply and audit. We'll come in. We'll do all these things.' You buy an integrated service.

Mr Davis—We are very heavily into natural gas and that is an opportunity. You are quite right in terms of services. That is happening. We see it in Australia and we see it overseas.

Mr Bailey—That is quite reasonable if you accept that there is a legitimate need to reduce greenhouse gases and so on. Our premise is that we are not completely satisfied yet in our own minds that that is the case or that it is the case to the extent that we need to take the sort of measures we are talking about. But if that becomes an accepted fact, then caps on emissions and changes in the balance of energy usage and so on will be an inevitable consequence.

Mr JENKINS—A lot of your competitors are going to accept it to varying degrees and are going to be in the market competing. One of the elements that is open to you is the clean development mechanism which, at the end of the day, might mean that you are

encouraging people to make better and more efficient use of your product, which has the added advantage to the overall scheme of things of, in the long term, reducing greenhouse gases.

Mr Bailey—Australia as a whole will benefit and will be doing the world a service if it is able to develop its resources of gas and turn them into liquefied gas and make that energy source available to other parts of the world for their own economic growth or to displace some other more carbon intensive fuels that they are currently using. That is certainly in the overall interests of maintaining carbon balance.

Mr JENKINS—Your submission also highlights the fact that, in the clean development mechanism, the monitoring mechanisms are going to overlap any emissions monitoring and the basis for any emissions permit. There is a lot of work that can go on hand in hand with that. The other thing is that your submission highlights that the Pacific Islands were an integral part of your market. If there is ever a region of the world that is scared, whether it is the minimalist or maximalist outcome for greenhouse, it is the Pacific nations. I would have thought that in some corporate sense there might be work that you have to do with those nations one-on-one that will be of benefit not only in an environmental sense but also for you in a corporate sense.

CHAIR—Thank you, Mr Davis and Mr Bailey, for your interesting statements. We all drive motorcars, by the way.

[3.20 p.m.]

NEWTON, Mr John Robert, Manager, Environment and Technical Services, Australian Chamber of Manufactures, 380 St Kilda Road, Melbourne, Victoria

CHAIR—Welcome. We have received a submission from you and authorised its publication. Are there any changes that you want to make to that submission?

Mr Newton—There are no changes that we wish to make. However, I would like to make a brief statement reiterating some points. By way of introduction, the Australian Chamber of Manufactures is an industry association. We were formed in Melbourne in 1877 and we have a membership of around 5,000 manufacturing industries covering all sectors of Australian manufacturing. We have been particularly active in environmental issues for almost three decades now. We formed an environment and hazardous goods working group in 1970 and have continued its operation to this day. Through this group, which is made up of health, safety and environment representatives of industries, we formulate a number of policy positions, including the one on greenhouse gas emissions.

Looking at the specific topic of greenhouse gas emissions and controlling those, I refer to the outcomes of the Kyoto conference, where ACM was particularly supportive of the stance taken by the Australian government at that conference. Looking at the outcome of an increase of eight per cent, we believe that to be a workable solution, although there is a lot of work that still needs to be done to achieve the outcome. Within the protocol there was a range of mechanisms put in place to achieve that outcome. One of that range was emissions trading.

In developing a plan to move forward for the nation, the PM's package in November 1997—'Safeguarding the future: Australia's response to climate change'—identified a number of activities which should be undertaken to achieve greenhouse gas emission reductions. Notably, there were initiatives announced in energy efficiency codes, the establishment of the greenhouse office and the activities which will be taken under the office. There is currently a lot of debate as to whether or not the PM's package, if that is delivered, will be all that is required to deliver our commitments in the Kyoto Protocol.

The issue of domestic emissions trading mechanisms would be something in addition to the PM's package. Looking at domestic emissions trading, or emissions trading in general, economic theory would tell us that this is going to be one of the most cost-effective ways of achieving some greenhouse gas emission reductions. But we have some concerns regarding the development of a domestic emissions trading structure. Those concerns are in the allocation of the permits and, through that allocation process, how recognition of previous actions can be incorporated into that so that industries that have already undertaken significant reductions in greenhouse gas emissions are not disadvantaged from those who have not undertaken those reductions; allowing for the growth in the

economy and growth within industries; and also picking up diffuse emissions and how those can be adequately dealt with under a permit allocation.

We are, however, supportive of the concept of an emissions trading regime, but with those overriding concerns. We believe that any scheme that is developed should be a truly national scheme and that a sectoral or regional based scheme would be of little value. The scheme should include all the gases indicated at the Kyoto conference and also include the provision of sinks.

The system, if developed, should be built around some primary principles and the most relevant of those would be that it needs to ensure a cost-effective environmental outcome. The environmental outcome is a critical part of what we are trying to achieve, so we need to ensure that that can be achieved in a most cost-effective way. It has to protect the competitiveness of Australia industry, particularly from nations who may not be signatories or caught under the Kyoto Protocol. It needs to maximise certainty for Australian industries to operate and to invest in our future.

CHAIR—I note in your submission you say that you do not believe we should rush into a trading scheme. Are there any basic reasons for that or do you think we do not have enough knowledge at this particular time?

Mr Newton—We accept the current scientific intentions that an issue there needs to be addressed. There are still a lot of gaps in the science and I think everyone would recognise those. We accept that there is action that needs to be taken. When we say not to move in with too much haste, I suppose we are looking more at the PM's package as delivered that puts in place certain initiatives. The question is whether those initiatives on their own will suffice to deliver the greenhouse gas reductions required. A domestic emissions trading scheme with the concerns that we have about equity for industries, the cross-sectors and internationally is the primary reason for us to say that we should not move in with too much haste.

CHAIR—We have had a number of submissions from industry about the allocation of permits. I think almost universally they have said they should just be granted. I wonder about that, because I have had some experience in these areas before. As soon as a permit such as this is granted, then it has a value. It is a value in that you are a current player, and I am not knocking that, but as a current player you are being given an advantage against someone who might want to break in.

Mr Newton—It would be an advantage over somebody wishing to break in only if there was a need for them to purchase discharge rights to break in. If a system could be devised such that a pool is allocated for development, that may be one mechanism whereby other players can enter the market and not be disadvantaged.

CHAIR—Would you see a trading scheme being broad so that anyone can invest in it; it does not just apply in the industry?

Mr Newton—There would need to be safeguards put in place to ensure that development could go ahead, that groups were not able to purchase permits, or have permits allocated which were never to be used and never intended to be used. The nation has a nominal cap on it of what the discharge allowances are and if they were not to be used for industry to prosper, the net benefit for the nation would not be there.

CHAIR—Unless there was a real value in those shares and there was a continuing value, then superannuation funds might invest, or something like that. I think that is highly unlikely. As far as environmental groups that might want to buy some shares to drive up the agenda, surely their ability to buy is limited. It would only be an incentive, really. Industry would be able to reduce their emissions to cover that type of trade.

Mr Newton—Industry may be able to reduce its emissions' cover, but it is always going to put an additional limiter on the rate at which the Australian economy can grow. The initial allocation from the Kyoto Protocol has recognised that there is a lot of growth potential in the Australian economy. If that allocation is wound down, in that permits are being taken out of the system, that growth is going to be limited.

Mr KERR—I wonder whether it makes sense to relate energy utilisation, or the intensity of energy utilisation, to GDP growth. After all, the countries that made the greatest surge in GDP growth in the last 15 years were the ones that were most adversely affected by the oil shock. In other words, they are the ones where there was the greatest, I suppose, superficial cost disadvantage in terms of energy. If you look at the United States and Europe, their GDP growth has been greater than most of the other players in the system. You are making the assumption that there is a bound relationship between intensity of energy use and GDP growth.

Mr Newton—I think that Australia is different from the European or the United States examples in their economies and size—they are a very mature sorts of economies. Ours is still growing. The industry component of that, equally, is still growing. There is a move from some of your traditional manufacturing, but the Australian economy is not as mature as those examples given. To achieve significant growth, I believe that there will be an increase in energy usage over and above what we are currently using. I think that was recognised in the handing down of the protocol.

Mr McDOUGALL—In reference to term of reference No. 4, you made the comment that any scheme should operate at a national level and complement and support any international scheme that is adopted. We have taken a fair bit of evidence to say that we are probably going to have get a national scheme up before there is an international scheme. It kind of puts one cart before the horse. It has been suggested that the electricity industry is one that has been a major player and is one that has already commenced work,

one that could already become operable in some sort of system fairly quickly. Has the Chamber of Manufacturers got any problem with that on the grounds that you have said that it should be going hand in hand?

Mr Newton—Taking the first point, our comment about the domestic scheme meshing with an international scheme is in regard to maximum efficiency of operation. If you have two schemes operating, one internationally and a number of global clones—a number of Australian manufacturers are not global clones—and the two systems do not mesh together, you have an inbuilt inefficiency. The reason for our statement about not moving with too much haste is that we believe that an international scheme should be the precursor to a national scheme.

The second question regarding the electricity industry and whether they are ready at this stage or in the fairly near future to move into a trading regime raises a concern with us in that many manufacturers may find themselves geographically in the position where they have no choice of generation time regarding the power. So they may be disadvantaged if one geographical area is able to avail itself of much cheaper power.

Mr McDOUGALL—But aren't we dealing with a national grid anyway? You have competition in power now in relation to pricing.

Mr Newton—You have competition in power in pricing in Victoria and in New South Wales and to a lesser extent in the other states, although it is coming.

Mr McDOUGALL—But you have competition between states.

Mr Newton—Yes. Even South Australia is still a little way away. But the overall outcome of that competition is yet to be experienced widely outside of Victoria and New South Wales. Although having said that, the bulk of manufacturing industry is also in Victoria and New South Wales, so there are some benefits from the reform process which manufacturers have been able to avail themselves of. The competition is still only at this larger end of the market. Some smaller manufacturers may still find themselves being disadvantaged in the short term, although as competition goes through the market, by 2001 that may not be such an issue.

Mr McDOUGALL—You have also said that permits should be issued free but that all inadequate commercial compensation rights confiscated should be allowed. How can you compensate something you got for free?

Mr Newton—The allocation, if you like, of the permits at this stage, if a scheme was to be started tomorrow, being free, would be allocating to industry the rights that it has today. If those rights are to be removed at some stage that is where the compensation may come in. It is not a compensation for the permit as such, but it is a potential compensation for the right to manufacture.

Mr McDOUGALL—But a permit is not for the right to manufacture; a permit is for the right to emit a certain level of greenhouse gas. On that basis, I cannot quite come to that logic because we are out to encourage people to improve the efficiencies of their operation to reduce emissions. If you give it to them free and then you offer them compensation, where is the incentive to do something about improving their emission output?

Mr Newton—The incentive to improve their emission output would be in the lowering of operating costs. ACM is a signatory to the greenhouse challenge program. We have actively encouraged a number of our member companies to sign on. I think about 30 to 40 per cent of the current signatories are ACM members. That is one incentive for industries to maximise their efficient use of energy. The other area where efficiency would be encouraged would be that if industries can reduce their overall greenhouse gas emissions those permits may then be saleable.

Mr McDOUGALL—Are all the oil companies members of your association?

Mr Newton—Yes.

Mr McDOUGALL—Are they part of the 30 to 40 per cent that have signed on?

Mr Newton—Yes. Of the initial 100 signatories, I think 34 were ACM members and, of the subsequent signatories, I am not sure of the number which are ACM members.

Mr McDOUGALL—But all the oil companies have signed up?

Mr Newton—To my knowledge they have.

Mr McDOUGALL—There is a school of thought around that if we are slow off the mark we are going to do ourselves a huge disservice in that some of our trading competitors are already out there brokering deals with developing countries to lay off old technology, which is past its serviceable life in a developed economy but is streets ahead of what is being used in developing economies, to generate new business opportunities and greenhouse credits for jam, basically. That is surely going to have a deleterious impact on your membership in its competitive position with these countries. Given that, I thought it would have been in your membership's interest to get in early rather than lay off and wait to see what others are doing, and potentially miss the boat on the opportunities that are out there.

Mr Newton—I suppose we are really talking about a domestic trading scheme, as opposed to an international trading scheme, and joint implementation and clean development mechanisms. Particularly the last two we see as a great opportunity for Australia to do just that, to move in particularly to some of our trading neighbours, and assist them with their improvements and to gain some credits from that process. The haste which we

speak about is really referring to a domestic trading scheme, as opposed to the international.

Mr BILLSON—So you would envisage some of your membership getting involved in clean development mechanism projects, stockpiling the credits on a shelf or flogging them in the international market, and then having a different set of arrangements domestically for a period of time. Is that how you would see that working?

Mr Newton—I would envisage that a number of our members would—and they currently are—be trading in developing nations. The use of the credits that could be gained could either be stockpiled on a shelf somewhere or be, I would hope, more appropriately used as a mechanism whereby their operations here in Australia could develop and could allow for growth into our economy.

Mr KERR—Let us just take the proposition that our target at Kyoto and future targets will involve some reduction over business as usual. I am wondering why you would see it as preferable that we hold back on developing a commercially traded system, which most economists say is probably the most efficient way of getting outcomes, in favour of less efficient systems in the interim—given that that objective will have to be met—and why your members who are participating, for example, in the greenhouse challenge program and a whole range of other energy efficiency programs would not want to be able to take the benefit of banking the credits that they obtain as a result of what they are doing through that cause?

In other words, why not be able to make something out of what is going to necessarily be part of national government policy, given those objectives? Why do you say we should hold off from a trading system which is the least regulatory and the least sort of command and control process that has been suggested thus far in favour of delay?

Mr Newton—The prime reasons why we are saying that we should hold off on that system gets back to the questions surrounding the allocation of permits—and the free versus option is one part of that—but adequately recognising industries which have made deductions versus those which have not and in what commercial advantage it may put a company which has not, as opposed to their competitors, and just even down to the allocation of the permit itself—and just a slight misallocation could put one industry at great competitive advantage over another.

Mr KERR—Just coming back to economic theory, because this is an issue that we have been toying with, there are two propositions that are articulated, one by classical economists—the economic theorists. They say that the allocation of free permits does not provide any advantage to existing players because the marginal costs remain the same for new and existing players. In other words, they say that a new player will either be able to trade their surplus or will be in a similar competitive position to any new player, so you

can grandfather without any economic disadvantage. That is one argument—you would grandfather everything.

On the other hand, others say that it does seem, as a matter of commonsense, that new players will be disadvantaged as against existing ones, and that that will slow economic development because there is, in a sense, a loading in favour of the dinosaur sector of the economy as opposed to the new vibrant more energy efficient sectors that would otherwise come through. You seem to be adding a further wrinkle to that which says that those who have already made some gains in energy efficiency need to have special compensation mechanisms built in on top of existing grandfathering arrangements. What economic theory do you subscribe to here in terms of the way in which this system would operate? We are all struggling with this at the moment. What is a fair way of dealing with the allocation of permits?

Mr Newton—I am not an economist, so I do not particularly subscribe to any one theory or another. What is a fair mechanism for the allocation of permits is probably the overriding concern that we have. How do you fairly allocate those permits to companies? If a company has spent X dollars on energy efficiency programs as part of a greenhouse challenge or not, should they get a lesser allocation than their direct competitor who has not spent those dollars? If they should, there is then an incentive for the less efficient and less responsible company which has not taken those steps to put those steps in place and then they have a windfall of the surplus permits. This is the overriding concern that we have.

CHAIR—So you are saying that was an altruistic investment and they did not get any economic gain out of it?

Mr Newton—With the advent of the domestic trading scheme, yes. Apart from the operating cost benefit that they may have received from that, yes.

Mr BILLSON—That is assuming that the initial allocation does not take into account that activity. If we were to pick—and I notice you have got a bit of an each-way bet on that 1995 date or something else—say, 1990, when people's consciousness was raised by all that was going on around greenhouse and said, 'That will be our starting position,' therefore you get that incentive and arguably a windfall gain for the people who have done the right thing—

Mr Newton—Since 1990.

Mr BILLSON—Sure, but then you might discount the value of those permits over time to pick up the emissions which have grown since 1990. You have got to pick that up somehow and pick up growth, and then shove it down towards 108, so we would need to flag a maturation and then a slide-down of the permit entitlement to take account of that and leave the door open for new entrants. Would it be fair to say that if a scheme could

be developed that satisfied those concerns, the ACM might drop their 'let's not be in too much of a hurry' position?

Mr Newton—A large part of the 'let's not be in too much of a hurry' position comes about from trying to solve those—

Mr BILLSON—Because we do not know what you are hurrying towards.

Mr Newton—Yes, those questions. If a scheme can be developed so that it is clear how the permits are going to be allocated, that no one enterprise will be unfairly disadvantaged over another and, indeed, those that have taken significant steps might actually benefit from it, yes.

Mr KERR—Can I put something to you from SEDA, the Sustainable Energy Development Authority in New South Wales. They point out that every company that has gone into the greenhouse challenge has actually made huge economic gains. They have not made a charitable donation towards energy efficiency at their expense. All of them, without exception, have come out ahead because of that change in their operating structure and often returned the investment they made in greater energy efficiency tenfold in two years. How many times do you need to be rewarded for doing something that you have already gained a huge benefit from in terms of your market position and your competitiveness?

Mr Newton—I am not familiar with the SEDA submission or the SEDA research in this area. We are a signatory to the challenge and the role that we try to play is one of advocacy for energy efficiency and trying to alert industry to some of these benefits which can be gained.

In a number of industries out there, however, particularly the newer industries, there is probably limited scope for gain in energy efficiency programs in that they were designed with energy efficiency in mind. For those it may be difficult with a gradual taper down. On the question of how many times you need to be rewarded, there is no mythical river of gold flowing around out there any more. There is no intention from our perspective of saying that we need to be rewarded and rewarded and rewarded, but equally we do not think there is a need for us to be disadvantaged anywhere along the line.

Mr BILLSON—Does your membership talk about your trade competitors and what situation they may be in in a post-Kyoto world? Does that come up in your discussions? Do you have any ideas about how to make sure those outside the Kyoto commitments do not have an unfair advantage over some of your members?

Mr Newton—I think there is a genuine concern amongst a number of Australian industries, both big and small, about the impacts that the Kyoto outcomes may have if some of their trading opponents are from outside the countries that are going to be

influenced by this. I do not think there is a universal thought on how we should respond to that. Again, it comes back to recognising that the outcomes of Kyoto are well beyond our control. It comes back to the core reason for doing what it is we will be doing—environmental benefit. The effectiveness of the outcomes of Kyoto will be very limited by the exclusion of the developing world. What is of great concern to us is, firstly, growth in our economy and, secondly, seeing that our immediate neighbours—our trading opponents in some areas, particularly in some sectors—are advantaged through this.

Mr KERR—There would be an advantage, perhaps, in some balance. Those countries would point out that most of the gases that are greenhouse indicted have a persistence in the atmosphere for a very long time. The long periods of economic growth that have got us to the platform we are on now have been built on the contribution of decades and decades of free emission. Those Third World countries that we are now saying are at an unfair advantage have not had that platform of growth and are far behind us. So imposing on them the same regime without giving them the opportunity to have that platform of growth is, perhaps, a bit of a self-interested argument. I hear what you say, but it is not going to happen in terms of the international environment.

Mr Newton—That is exactly right.

Mr KERR—Mr Billson has suggested encouraging people to start thinking about how they can take part in an international trading mechanism. A number of companies have said to me that they are holding off making decisions on investment streams until they know whether there is going to be a trading regime because they want to pick up some of these things.

It is not going to be in Australia's interests if companies hold off on making improvements to their environmental outcomes for four or five years on the basis that they may get a windfall gain. As to how realistic that windfall gain is, I think that is pretty dodgy to be honest. I suspect that, if you can make the efficiencies, you make them when you can. Nonetheless, if that is their view and they are holding off, it is not going to be a very good thing for Australia in terms of the targets we are setting, and it will make it more difficult for the national system to gear up to what we are seeking to achieve. We may find the pain greater because we are trying to compress compliance—that is, we are trying to get the last two or three per cent towards the 108 per cent in the last year or so to meet a target, and it just becomes very painful.

Mr Newton—Firstly, the ACM fully recognises the contribution that the developed world has made to the problem versus the contribution that the developing world has made. There is no question that, as the developed world, we have a case to answer. The query is looking at going forward from here: what is the most cost-effective way of limiting the rate at which greenhouse gases are being emitted? That is where the query is. Is the most cost-effective way limiting it to Annex 1 countries, or is the most cost-effective way for a global problem to assist with a more responsible growth in some of the

developing nations? That is where we see the joint implementation and the clean development mechanisms as being very pertinent and very appropriate for Australia to be really forging into it as quickly as we can.

In relation to the other question regarding the companies holding off on development, I would agree with you fully. That is not in Australia's best interest. My query with that may be whether or not the trading regime that is considering that is the international or the domestic.

Mr BILLSON—Domestic.

Mr Newton—ACM is very supportive of the committee's work in getting an Australian view on emissions trading, if you like, and we encourage the government fully to participate as strongly as it can in the development of an international trading mechanism. That is part of the protocol. It is something that we have now, and we need to make sure Australia as a nation is not disadvantaged. Our reservations are more aligned to the domestic scheme.

Mr ROBERT BROWN—Does ACM accept that, to a large extent, this problem that the world is now facing is unique? Whilst it is quite appropriate and legitimate for the ACM to be pursuing commercial objectives and saying it is important that the most cost-effective measures be adopted to deal with this question, governments may increasingly find themselves in a position where they are not so concerned about cost-effective measures but environmentally effective measures which may not be cost effective. It could be that, if the worst case scenario which a lot of people hold is the correct one, we will find ourselves in the position where, as Duncan was indicating as well, as a result of the accumulated problems of the past, we have gone so far down that road of damage that within the period of time that it needs to be reversed, it just will not be. Then manufacturers, the same as all other interests throughout the world, will have their future threatened in a very, very positive way.

Mr Newton—ACM is not advocating in any way that on greenhouse gas reductions industry should be sitting on its hands. It has been pointed out that in some instances economic benefits can be gained. As I said, the agreement that we have with greenhouse challenge requires us to encourage, support and provide information to our membership, given our membership covers everything from a one-man show right up to the multinationals that are operating in Australia. I think it is probably worth pointing out that we have, say, around 6,000 members. There are not 6,000 large industries in Australia so, by definition, the majority of our members are going to be at the smaller end of the scale. I see our role as being one to advocate these things to industry. We are not in any way saying that industry should be sitting on its hands in relation to energy efficiency and the like.

There are a number of other mechanisms, though, in the PM's package from November last year which do not revolve around a domestic trading regime. As I said in my opening comments, there is a reasonable amount of debate around at the moment to say that if that package were implemented, would that be enough to satisfy the 108? If not, yes, there are other activities that need to be instituted. There is no inference from us that, on greenhouse gas emission reductions or on energy efficiency, industry should not be doing anything at the moment. We argue very strongly that they should. The level of activity within industries is such that a number of industries are still, for the first time, moving into this area. A lot of your bigger companies have made significant gains. There are still, I believe, a lot of gains to be made in the smaller end of industry.

Mr KERR—Do you think it would help just to quantify exactly where we are, if the government would identify, firstly—and it may not be possible until the Rio negotiations which will settle the land use issues precisely as soon as practicable, where, on its projections, the 108 is in terms of where it says that its measures will come to? Most people, I think, assume that there is a gap between what is proposed by way of measures and the 108—not a substantial gap, not nearly as large a gap as would have been the case if it had been 105 or 100, but, nonetheless, probably a gap of some per cent. I am not sure what the quantum of that would be. Would it help if that was publicly known and articulated so that people could actually identify whether or not we would wish to address those things through this kind of mechanism?

Your submission says that you recognise the challenge. It looks like there will be an eight per cent increase in emissions and you projected a 30 per cent increase in population, although I do not think that is terribly probable at the moment. You say, 'It is doubtful the challenge could be met through strictly no regrets measures,' but that we need to move on. I am just wondering whether we need to actually put all this into the public domain in as clear as possible a way so that we can actually have a debate which moves away from the shadows and says the degree to which there will be that shortfall in reality. At the moment we are still arguing about the what ifs.

Mr Newton—We would agree that any debate on this or on other issues should be as transparent and as open as possible. A lot of work really needs to be done to get the land use change figures down to a level where you can predict, with any level of accuracy at all, what impacts they are going to have. My only concern with that, having said that we like openness and transparency, is that if, say, the gap was going to be two per cent from where the PM's package will take us to the 108, there may be a tendency within the community to think, 'That will be achieved. We will get that. Two per cent is not much.' But two per cent means that there is still a significant amount of work to be done, and whether or not that is going to send the best message to industries—or to the community, really—when they are debating what actions they should be taking next to achieve reductions, I do not know.

Mr KERR—Some economists would say that, whatever the elements of the package that exists, an economic mechanism such as tradable emissions ought to be put in place because the inevitable next round of Kyoto is not going to be as benevolent. In other words, we may have a two per cent differential now—it may be more; it may be less—but let us assume that, whatever it is, the next round of Kyoto is expected to increase pressure on the developed countries, and increasingly on a number of countries in transition, to come up with further commitments.

If you assume that, perhaps you would want to put in place a mechanism which enabled you to move without delay and with minimum economic disruption. The sooner you put in place things that give some sorts of economic signals and which do so in a way which is consistent with your objectives—that is, avoiding intrusive government and maximising economic efficiency—the better. I am just wondering what you think about that.

Mr Newton—I do not think there are many informed people out there who would not agree that the next round of Kyoto-type outcomes are not going to be as benevolent as these have been. Without saying that these were really benevolent, I think it is highly unlikely that at the next round we would get another eight per cent increase. So, yes, beyond what happens between now and 2008-12, a significant amount of work is going to have to be done.

Getting back to the core question of the trading regime and the role that it will play, we recognise that ultimately there will be a role for a domestic trading regime. Getting back to our core concerns, when we say that we should not be moving through with too much haste, I realistically do not envisage that we will be going beyond this agreement period and still not have in place something like that.

We are advocating that, through mechanisms like this and further consultation, we should not have to rush into creating a system which is not properly researched and operational for the sake of having one; that the net benefit should be in the environmental outcomes that are going to come from it and so we need to put the appropriate amount of time into developing the mechanism. But this type of mechanism will have a role to play, particularly into the next budget period.

Mr KERR—If you accept that the next regime is likely to be tighter, and you want to put something in place, it seems to me to be inconsistent with your proposition that you would regard these trading rights as inalienable property. If I can take up a point made by Mr Billson, Mr McDougall and the chair, we can anticipate that if the international benchmarks become tougher, we will need to withdraw permit. Hopefully, you can do it over a long enough period of time to make the economic process as gradual and as benign as possible. That would give people the opportunity to think through how to make those adjustments—to plan it, structure their businesses, make the transitions that are

necessary, develop new approaches and the like over a framework of time that is sufficient.

But if you are going to contemplate the withdrawal of permit, or the discounting of the value of permit, however you do it, you cannot regard them as a form of inalienable property right; they have to be subject to adjustment as the obligations that Australia faces as a member of the international community change. So I wonder about the consistency of those two approaches.

Mr Newton—I think the question of the property right or the integrity of that permit, whether it is just reduced in size or physically taken away and how that could be achieved, needs to be taken in light of the whole Australian community and whether or not a sector of industry, manufacturing industry or industry in general, however broad that may or may not get, is going to be the sole deliverer of greenhouse gas reductions. If that is the case, I suppose any compensation would come from the community as a whole.

CHAIR—We could go through this for days, I think, on some of these arguments. Thank you, Mr Newton, for your submission and for appearing before the committee.

[4.14 p.m.]

FRASER, Mr Alistair, Chairman of Commissioners, Melton Shire Council, PO Box 21, Melton, Victoria 3337

HOLLOWAY, Mr Roger, Consultant, Melton Shire Council, PO Box 21, Melton, Victoria 3337

McLEOD, Ms Jacqueline, Environmental Services Manager, Melton Shire Council, PO Box 21, Melton, Victoria 3337

CHAIR—Welcome. We have received your submission and have authorised its publication. Are there any changes you want to make to that submission?

Mr Fraser—There may be some changes; there are certainly some points we would like to highlight to you.

CHAIR—If you could make a brief opening statement, we will then ask you some questions.

Mr Fraser—I would like to start by thanking you and the committee for making the time available to hear us. We are very grateful for that. I understand some papers have been distributed to the committee. Just to reinforce where the Shire of Melton sits in the scheme of things, it is the fastest growing municipality in percentage terms in Victoria today, growing at around 6.7 per cent.

CHAIR—For us foreigners, could you tell us where that is?

Mr Fraser—Melton, not to be confused with Melbourne, is on the western edge of metropolitan Melbourne. It is right on the boundary of the telephone zone, which is very useful for people who want to set up business in our municipality. We are next door to Bacchus Marsh, which may be more familiar to people in the room as the apple capital of Victoria.

Melton Shire is well placed within local government to embrace the initiatives involved in carbon accounting. That is a statement we make because of our track record in environmental sustainability. That is generally derived from work that we have undertaken over the last few years, particularly in relation to a thing called environmental enhancement policy and its joint proposition, the rural rebate. We undertook an environmental conservation study and we identified three areas of concern: pest weeds, feral animals and soil erosion.

We have now tailored our rating system to reward people whom we call land managers—we have done away with the connotation of farmer. People may be farmers,

they may be occupiers of rural property. To get away from the taxation act definition of who is and who is not a farmer, because if you are a farmer you are then entitled to a certain dispensation under the rating system, we came up with a definition that embraces all rural properties. We saw those rural property owners as land managers and responsible for leaving the property in better condition than that in which they took it over. If they do that, we will reward them through the rating system. We do not reward them with a few cents or a few dollars. In general, people can earn a 40, 50 or even 60 per cent rebate on their rating system for removal of pest weeds and feral animals and containing soil erosion. They are the three major categories in our particular area.

CHAIR—I hope they are not all enthusiastic—you will not have any rates.

Mr Fraser—They are very enthusiastic. We have some 15,000 ratepayers, of which some 1,100 qualify under this scheme. The key was looking at the problem a little differently. Rather than seeing them as farmers and problems—and I am not putting the two things together, but they had had problems with council in the past—we were looking at it with new terms of reference, a new framework, where we saw all of those people as land managers and referred to them as rural property owners or managers. We have a significant problem with the weed called serrated tussock. All this is really background. We are addressing that problem through the rating system.

We feel that from that experience and our desire to participate in the attack on greenhouse gases and to earn some carbon credits, if that does in fact become a trading proposition, we have the mind-set and the framework in place to undertake a leadership role in local government, particularly in Victoria. I am not sure how other local governments are placed in other states but we would lay claim to significant expertise and capability in the environmental sustainability area within Victoria. Those are the comments I wanted to make prior to Roger Holloway making some points with regard to the specific matters before the committee. Thanks again for your invitation.

CHAIR—Roger, is there anything that you have not already told us this morning?

Mr Holloway—Yes; it is quite a different submission, Chairman.

CHAIR—You are a man of many hats.

Mr Holloway—This time I am advocating for local government, and perhaps it goes to address some of the points that were being raised with Mobil a little while ago when you were looking for some solutions at the next level down. I would like to make a suggestion that local government actually has some of those levers.

The Shire of Melton wants to take progressive action, as just indicated by the chairman of commissioners, but it does face pretty severe constraints in doing so. It is very hard for local government to find the money to put into place measures that will

practically and cost-effectively reduce carbon emissions. They can always look at the energy savings they could get from capping their methane emissions from the tip and putting it back into the grid and earning a little bit of money—those sorts of incentives. But usually they are not enough to find sufficient money to take them over the threshold and make them invest.

If there are some policies in place at government level that address emissions by capping—capped regulatory emissions—or by taxation of carbon where the benefits for that carbon credit are available and accessible at local government level, that will make all the difference in local government becoming an active participant in generating and putting in place those measures at local government level.

CHAIR—What are local government offering as a credit?

Mr Holloway—It is still predicated on an initial government policy position to put in place a carbon tax, an emission right or a tradable permit or, in the case of vegetation, a sink offset.

CHAIR—What we are looking at here at this stage is giving licences to emit and a credit system that sets up the whole tradable situation.

Mr Holloway—That is right.

CHAIR—What I am looking at, I suppose, is what is it that you, in the shire of Melton, are growing or how are you sequestering carbon dioxide that is going to be a tradable right?

Mr Holloway—That is what we are addressing. Melton has a number of sectors—

Mr BILLSON—Just on that, I think what they are saying is the vegetation activities, a sink value and the methane stream out of land fill, which is 23 to 28 times—

Mr Holloway—Separate issues; separate opportunities.

CHAIR—So you are representing all of the property owners in the shire?

Mr Holloway—That is right. We are looking at the municipal wide perspective. Perhaps I should go back to the start because a general point is that Lumb and Associates said in 1994 in their report *Greenhouse action and local government: making change count* that local government in Australia was able to influence greenhouse gas emissions that contribute to about 50 per cent of Australian total emissions. That does not mean to say that they control those emissions but that they have policy levers that can influence and impact on up to 50 per cent. That is important. We will be one of the players. We are not saying we are the main player; we are saying we are one of the players and we have

an important role to play. Even though we at Melton do not have the blessing to speak on behalf of local government, some of the things that we will put forward to you will, we suggest, be pretty widely applicable around predominantly rural Australia.

Melton supports the development of the trading system because trading emission permits and offsets will provide an incentive to implement abatement programs and generate revenue that is positive to the council and therefore takes the viability of those projects into the black. It also means that the government's preferred no-regrets measures can be identified at local level and need not depend on continuing external funding support—namely, taxpayer funded programs—for their viability.

Another benefit of a trading system open to local government is that there is scope for trading between municipalities. This has already been discussed. For example, inner city and industrial municipalities who are net emitters may trade with urban fringe and rural municipalities who can implement programs at substantially lower cost to reduce current emission levels or to provide sinks through land use change and forestry initiatives.

Many rural local governments are concerned with the long-term run-down of the quality of land resources and their fundamental economic base: salinity, erosion, weed control—the sorts of things that the shire's environmental enhancement policy, managed by Jacqueline McLeod, is addressing. She has tabled some information on that policy.

We believe that the carbon credits attaching to vegetation retention and new plantations can be integrated with this approach and boost the efforts to achieve sustainable land and property management.

There are a number of sectors that we believe local government can address. In Melton's case specifically, the key opportunities are waste disposal—capping of tips, methane and windrow technology et cetera; vegetation sinks, as I have already mentioned; car use; and urban design, for example, picking up some of the points out of the greenhouse neighbourhood project which looks at the savings that can be achieved through urban design and energy efficient buildings linked with home energy rating systems under the VicHERS scheme.

We are applying some of those at the new Caroline Springs development which is a proposal on the urban fringe. It is one estate seeking to house about 25,000 people and it is currently under construction by Delfin. It is intended to plant half a million trees. Those sorts of estates and the future of many more yet to come can be thought about in greenhouse terms, provided we can find some way of linking that in with some performance target at local government level that might be linked to some emissions allocation—winding back achievement of targets and incentives on that front.

This is where the question that Duncan Kerr asked before of Mobil comes in—something that bites at a level below the producer of, for example, fuel. Also, the opportunity to pick up urban design things at local level through programs such as the greenhouse neighbourhood project; green fleet car opportunities and things like that at local level; vegetation carbon accounting as a service to smallholder farmers and rural property owners so that, instead of each property trying to carbon account its own vegetation, which would not be cost effective, we provide a voluntary service at local government level where the council could basically do a deal so that, in the event of there being a sale at some point of time in the future—in five, 10, 15 years or whenever it happens—they set up the accounting process and monitor it all the way through. Eventually something will be realised as a tradable asset and, upon that realisation, it may be that the shire and the landowner split the money fifty-fifty under some prior agreement as part of the voluntary package.

The introduction of policies, whether by way of carbon tax or the allocation of emission rights, will be critical in determining the opportunities that will be attractive for us to pursue. For example, Melton has been exploring the possibility of reducing its methane emissions, as I have mentioned, and changing its waste stream so that there will be fewer greenhouse gas emissions. The prospects of council actually endorsing an investment decision to take the action will be enhanced if a value that they can realise comes from a carbon trading opportunity. In the absence of a crediting and trading system it is difficult to see where there will be sufficient incentive for improved performance.

I have mentioned the potential important role for local government in the carbon accounting of vegetation and, given the time, I will not go into that any further. It is similar to the points we were making in the Landcare submission, save to say that this is an opportunity for local government to play a role across a broad number of small-scale plantings.

We have made a submission to that effect to the Natural Heritage Trust for a project to pilot carbon accounting of vegetation as a municipally provided service. Council will be willing to share the results of that with others so that it becomes a bit of a demonstration opportunity for local governments around Australia.

Vegetation carbon accounting, for example, will require new skills in biomass measurement and monitoring throughout the country. Local government is an excellent base for nurturing the practical training and providing the experience needed for these activities and doing them well within a government framework.

Private forestry initiatives were also mentioned in the Landcare submission. The proposal to expand the 2020 vision plantations around Australia over the next 22 years identifies local government as being a strategic partner in the process but, if you look in the documentation, it provides no real option for how it is to secure that partnership. I put to this inquiry that carbon accounting services through local government do offer such a

prospect, if local government were to become a partner in carbon accounting of plantations on private lands in the municipality. This is another example of a win-win outcome which can arise if trading in emission rights and carbon credits is available at local government level.

In conclusion, we submit that Melton is a willing participant in responsible greenhouse initiatives provided the incentive exists through trading to develop and implement progressive programs. We believe that there are many other municipalities around Australia in a similar position. We note the positive response to the government's cities for climate protection program as a case in point. Perhaps I should say the ICLEI—International Council for Local Environment Initiatives—in partnership with the Australian Local Government Association but funded through the Commonwealth, is the way that cities for climate protection is being put in place at present.

Recommendations resulting from this inquiry should enable and facilitate the development of a positive role for local government as a pro-active partner in a broad range of greenhouse mitigation measures that are amenable for action by municipalities. It can do this by recommending that trading systems should be accessible and cost effective for practical projects at community and local government level.

CHAIR—Do you have anything to say, Ms McLeod?

Ms McLeod—No, I do not have anything to say.

CHAIR—Let me get this straight. You are saying that you are in an ideal position to monitor the position of your council as far as vegetation growth and environmental credits that might accrue from that are concerned, and as your council is so benign and paternalistic, on behalf of the property owners, council will accept all the value of that.

Mr Holloway—No, that is incorrect.

Mr McDOUGALL—That is the way I heard you.

CHAIR—That is the way I heard it.

Mr Holloway—No. I did make the point in the presentation that, at the outset, we would offer a voluntary program which people could join where we would offer to provide and coordinate a service through local government so that the skills do not have to be sought separately from consultants and be negotiated separately by landowners who do not understand what is actually involved or whether or not they are getting a good deal. The shire would offer voluntary participation on the basis of an agreement being signed at the outset as to how the benefits will be shared. If it turns out that it is a fifty-fifty arrangement, the shire will provide the services free at the outset as part of its service, but

on the basis of earning 50 per cent of the ultimate sale of a credit at some time in the future.

CHAIR—So if I wanted to be a property owner and build up some credits on my own, I could do that, but if I wanted to use your monitoring service, it would be a user-pays service?

Mr Holloway—No.

Mr BILLSON—You would be offering a cooperative type structure for people who might otherwise be too small to participate in their own right and there is a benefit sharing arrangement entered into.

Mr Holloway—That is right. The choice would always be with the landowner as to how they wish to go about their own carbon accounting. The larger landowners may well choose to do it themselves by direct negotiation.

CHAIR—But if they wanted to use you, you would charge for the service.

Mr Holloway—Exactly. The shire has a large range of small holders, with small-scale plantings disaggregated and disseminated around the rural areas. It can provide services down to a much smaller scale which would not be worth carbon accounting in their own right.

Mr McDOUGALL—How big is your shire, geographically?

Mr Fraser—It is 528 square kilometres.

Mr McDOUGALL—So it is fairly small?

Mr Fraser—Yes.

Mr BILLSON—In Queensland terms.

Mr McDOUGALL—I come from a local government that was 1,500 square kilometres, and it was a city called Brisbane. If you are so small as an urban area and you want to get into the growth mode of the likes of Delfin developments, with which I am quite familiar—and you seem to be a shire that will grow in an urban development pretty rapidly—where are you going to find the area for the ability to construct worthwhile sinks?

Mr Fraser—We currently have about 80 to 90 per cent of our population living in 10 to 15, maybe 20, per cent of our landmass, so it is the converse.

Mr McDOUGALL—What does your town plan say, though? How is that going to affect you over the next 10 years?

Mr Fraser—It might bring the land usage ratio down to 75 rural and 25 residential.

Mr McDOUGALL—So you are going to have it controlled?

Mr Fraser—It will always be predominantly a non-residential area, not a rural area, in terms of landmass. Over time, we will have around 140,000 people in the municipality, but they will live in about 30 per cent of the landmass.

Mr McDOUGALL—With your planning act—I am not too familiar with the Victorian one, but I think the state has the most control over it—

Mr Fraser—They have a bit.

Mr McDOUGALL—I come from a state where the local government has total control over it. Do you have the ability to put headworks charges onto your planning approvals to be able to encourage people to come into this thing?

Mr Fraser—Yes. We have a scheme called the developer contribution plans which attaches to subdivisional rights.

Mr McDOUGALL—Do you have that for industry as well? If you are going to encourage industry to develop in your electorate—and I presume you are to a certain extent because you want to have an employment base for your population—do you have the ability to go hand in glove and work with industry on a carbon trading business as well?

Mr Fraser—We have not considered that at this point, but we will now.

Mr KERR—I do not know how it operates, but I think the land title system in Victoria has a fair degree of flexibility. With the Trust for Nature, for example, you can covenant to oblige new and future titleholders to keep areas under native vegetation. If you allowed native vegetation to come back, that would be one of those you could claim as a sink, for what it is worth.

You said in your earlier manifestation that there are systems now so you can record on your title property ownership in the trees themselves, and that has a separate life from the title. With the sort of thing you are talking about, who would be the manager of the little scattered estates that would exist in either bushland or plantation timber?

Mr Holloway—The management systems will be as varied as there are existing arrangements. Some people will have the skills; others will not. I think we are suggesting that, if the credits go to historic absorption work, the market works and provides value to the fact of that storage of carbon, there will be an incentive for some people to upgrade their skills and to upgrade their decisions to either protect and restore, add species to or participate in a commercial venture of growing trees for commercial purposes. So, at the margin, additional decisions will be made to better manage and better grow trees.

Ms McLeod—If I could just add something to that: through our environmental enhancement policy we have developed a fairly extensive infrastructure for accountability for landowners undertaking environmental enhancement works. That is linked to the granting of the rebate and requires the completion of a statutory declaration. That is something unique that we have developed, which is very much a one-on-one agreement with landowners as to what they do with their land. We would envisage developing that infrastructure further to take into consideration carbon accounting and carbon credits.

Mr KERR—You are right on the point that I wanted to ask about. How much is this a one-off in terms of Melton's readiness to play in this environment?

Ms McLeod—I think we probably are as well placed as any municipality to move into a one-on-one arrangement with landowners. We have that infrastructure very well developed. We also have a very sophisticated mapping system using a GPS unit where we map individual properties, and we can record information at the property level and transfer that back directly onto our geographic information system.

Mr KERR—If you are as well positioned as any, the other side of it is: are other rural councils going to be able to take this up or are you really coming to us saying, 'We can do it but we can't draw much from it other than that there is one outer-metropolitan shire in Victoria that is ready to run with this opportunity but no-one else is within a bull's roar of it'? Do you think other councils are keen?

Mr Holloway—We all want to answer this! I will be the first to say that we want to do something about greenhouse. We recognise that it is a global issue and it really requires the whole of the nation to do things about it. The reason why one council might be trying to pick up the ball and run with it a little bit would be that we are trying to find ways to make something work and work practically that has potential application across a large number of situations.

Mr KERR—I apologise—I am obviously not making myself well understood. I do not doubt your enthusiasm but I am wondering—

Mr BILLSON—How far off is everybody else?

Mr KERR—My colleague put it better than I.

Mr Fraser—I had a role with the peak body in Victoria in local government—the Municipal Association of Victoria—as the Treasurer and then on the board. I would think that by our showing the way, there would be significant cooperation, particularly from the rural municipalities, to join in. Once we were able to demonstrate that it is possible, at a realistic cost level, because councils in Victoria—

CHAIR—There has to be an economic incentive.

Mr Fraser—That is right. Councils in Victoria have—as you would probably realise—had a 20 per cent rate cut in the last few years and there is not a lot of money there. We need some money in the pool to make all this work. If we can demonstrate that this works, I am sure the other councils would follow. I would be very confident about that.

Mr Holloway—I would have thought that it would be in the interests of government to try to find ways—that it does not have to keep on digging into the taxpayers' pockets to find NHT money to put out all the time from Canberra—to support these sorts of initiatives. The closer we can get it to the people who are doing it the better.

Mr KERR—Did you get some NHT money in Labor seats? That is an extraordinary thing.

Mr Holloway—This is an application at this stage!

CHAIR—I dare say it comes down to how it impinges on the individual—that is what it comes back to.

Mr BILLSON—The environment enhancement rating system would be extended to be a way dividends are paid back to participants in the cooperative scheme that you are talking about. Is that broadly the idea? In putting their property management plans in, that is their undertaking to do certain things to create the greenhouse credits that you can then sell off and feed back into the financing incentives.

Mr Fraser—Yes. A general response from us would be that we would have a framework that suits that. It has been tested all the way through the legal system. We have had one person who was not overly happy, but that has been tested by the count system and that has been resolved in our favour. The other 1,100 are very happy with that framework.

Mr BILLSON—We had the landcare group earlier in the day talking about using the catchment land management structure, basically to try to achieve what you have pretty much got set up anyway. That was a line that they were acknowledging—the institutional structure needs of having some broker putting together what little bits are going on into something that is saleable, basically.

There is that facilitation role. There are your own purpose activities around waste to landfill and those sorts of things. The model for distributing benefits through the environment enhancement scheme is fairly clear. In terms of the other organic composition without the methane model that you are pursuing, who benefits? Have you got any further on whether the provider of the technology or the users of it benefit, or is that something you are just trying to negotiate through?

Mr Holloway—That is the point we are trying to make. In the absence of a cap set by government, an emissions right, if you like, which council could look at and take into account in making its investment decision about how to handle the methane emissions so that they are reduced and sufficiently accountable, and so that it can demonstrate the reduction that is actually achieved. There are a lot of technicalities involved in all of that. But, that aside, if the council can actually realise that benefit by being able to say that they can save so many tonnes of methane as part of their allocated rights in the municipality, even if, for policy reasons, they might be being racked tighter year by year, it achieves a lump sum saving on that emission. They can trade it with another municipality, or another outside party, by doing it so that there is a benefit that flows back. The incentive for doing the action will be with the local government.

Mr BILLSON—I understand what you saying. What I would invite you to comment on though is that it is predetermined on you having to have a permit in the first place.

Mr Holloway—Yes. That is right, it is.

Mr BILLSON—If the government is of the view that landfill in aggregate terms equals a poopteenth of our national emissions and therefore does not worry about it, you would then have to argue the 23 to 28 times impact of methane—that it should be in the loop and, therefore, council's need to get a permit, otherwise you do not have anything of value to trade.

Mr Holloway—That is right. Yes, I agree.

Mr BILLSON—Is that anything that has come up at the MAV? Have the peak bodies talked about whether the councils want in or out of permits for their own activities?

Mr Fraser—No, it has not. It is too early in the cycle—and we are probably at the leading edge—but we will be feeding this back to them.

Mr KERR—Can I raise one other rural aspect that also may need an aggregated way of measuring and quantifying, and that is methane from flatulence? I know it sounds absurd, but there is an enormous amount of methane generated from animal grazing. One of the things that I thought of was that this was not conducive to reduction strategies. But quite contrary to that, the CSIRO and New Zealand's scientists are saying this is actually one of the emission sources that is the most amenable to reduction strategies because you

can develop feed pellets which, if added to the feed, prevent the fermentation in the gut, so the animal does not do what animals do.

Mr McDOUGALL—It affects their digestion.

Mr EOIN CAMERON—But kangaroos fart as well.

Mr KERR—Quite seriously, if we reduce the amount of methane emissions from rural properties, it is quite a significant contributor.

CHAIR—That should be a credit to the farmer.

Mr KERR—That is what I am saying. No farmer will be large enough, and he may not even have an economic incentive unless you can actually quantify it and then put a return in. Do we solve the greenhouse problem by farmers' benevolence? I do not think so. Farmers would like to get their small return. Do you see councils perhaps, becoming managers and collecting societies for all these small disaggregated—

CHAIR—Do you think that farmers take notice of councils?

Mr KERR—I do not know—I have no idea. Each individual farm will not an accounting unit for that kind of strategy—it cannot be. In the same way, each individual farm cannot be an accounting unit for small plantations, windrows and things like that—they cannot be. Say we seek to broaden the depth of a trading market. Some people say, 'Just start at the power stations,' but I am attracted to starting modestly and then expanding. As we expand we will have to think of some way of using authorised checkers or agents to certify it and to distribute benefits downstream so that the farmer who does feed these pellets into his cow or sheep feed can go through a certification process and say, 'Look, I've made this significant contribution,' and actually get a small economic return. It would cover the cost of the feed pellets and he would perhaps make a profit out it.

CHAIR—I would love to have you at the local pub of a Friday afternoon.

Mr Fraser—I really would like to take that up. What we have done with the environmental enhancement policy is just that: we are rewarding farmers across the municipality in accordance with the bottom line if they observe the three principles—control pest weeds, control feral animals and control soil erosion. We go out and check that. While it is performance based, we monitor the performance. They get rewarded if they have done the work. The same framework could fit with a carbon credit situation. Farmers will take notice of council if we have got our eyes on the bottom line. We think that is what we have achieved.

We would like what we are proposing to be seriously considered. We have developed a framework that works for a particular area, it is called the environmental enhancement policy, and we think it is translatable into carbon credit monitoring. Other

municipalities—I think two or three—have now adopted the environmental enhancement policy. We are doing a study under the auspices of the state Department of Agriculture where we look at the financial sustainability of this program over time. The results of that will belong to the state government. They are taking it seriously.

Mr McDOUGALL—Duncan has raised an interesting point. My suggestion is that agricultural B in development terms is in-house, in-building, growing. We can use the fowl industry, the pig industry and a couple of others that actually operate with a far more measurable mechanism. I do not know whether you have got any in your shire. I can see one in the pig industry being very much along the lines of what Duncan was talking about—where you can actually measure and get credits. There is also a controlled waste stream in there with the actual residue which goes out into pits and that type of thing. Have you got any agricultural B?

Mr Fraser—Yes, chickens, pigs, greenhouse, agriculture—so we are in there already.

CHAIR—Thank you. It is proposed to take two documents that have been submitted as exhibit No. 5: a sheet entitled 'Submission to the Chairman' and a document entitled 'Non-urban zones environmental enhancement policy 1997-98.' There being no objection, it is so ordered.

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

That, pursuant to the power conferred by paragraph (o) of standing order 28B, this committee authorises publication of the evidence given before it at public hearing this day.

Committee adjourned at 4.54 p.m.