



COMMONWEALTH OF AUSTRALIA

# Official Committee Hansard

## SENATE

EMPLOYMENT, WORKPLACE RELATIONS AND EDUCATION  
REFERENCES COMMITTEE

**Reference: Office of the Chief Scientist**

FRIDAY, 2 JULY 2004

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BY AUTHORITY OF THE SENATE



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**SENATE**  
**EMPLOYMENT, WORKPLACE RELATIONS AND EDUCATION**  
**REFERENCES COMMITTEE**

**Friday, 2 July 2004**

**Members:** Senator George Campbell (*Chair*), Senator Tierney (*Deputy Chair*), Senators Barnett, Carr, Crossin and Stott Despoja

**Substitute members:** Senator Johnston for Senator Tierney

**Participating members:** Senators Abetz, Bartlett, Boswell, Brown, Buckland, Chapman, Cherry, Jacinta Collins, Coonan, Denman, Eggleston, Chris Evans, Faulkner, Ferguson, Ferris, Fifield, Forshaw, Harradine, Harris, Humphries, Hutchins, Johnston, Knowles, Lees, Lightfoot, Ludwig, Mackay, Marshall, Mason, McGauran, McLucas, Moore, Murphy, Nettle, O'Brien, Payne, Santoro, Sherry, Stephens, Watson and Webber

**Senators in attendance:** Senators Brown, Carr, Johnston, Ludwig and Stott Despoja

**Terms of reference for the inquiry:**

To inquire into and report on:

- (a) the functioning of the Office of the Chief Scientist;
- (b) potential conflicts of interest arising from the dual role of the Chief Scientist; and
- (c) the development of criteria for the appointment of the Chief Scientist through legislation.

## **WITNESSES**

<b>BALDWIN, Dr Kenneth George, Chair, Policy Committee, Federation of Australian Scientific and Technological Societies .....</b>	<b>2</b>
<b>BATTERHAM, Dr Robin John, Chief Scientist .....</b>	<b>34</b>
<b>COOK, Mr Grahame John, Deputy Secretary, Department of Education, Science and Training .....</b>	<b>78</b>
<b>JACKSON, Mr Erwin, Energy Reform Campaigner, Australian Conservation Foundation .....</b>	<b>14</b>
<b>KRIZ, Mr George, Chief Lawyer, Department of Education, Science and Training .....</b>	<b>78</b>
<b>MILLER, Professor Seumas Roderick, Director, Centre for Applied Philosophy and Public Ethics, Charles Sturt University .....</b>	<b>25</b>
<b>PEACOCK, Dr William James, President, Australian Academy of Science.....</b>	<b>58</b>
<b>REYNOLDS, Ms Anna, Manager, Climate Change Program, World Wide Fund for Nature.....</b>	<b>14</b>
<b>SERJEANTSON, Professor Susan Wyber, Executive Secretary, Australian Academy of Science.....</b>	<b>58</b>
<b>SMITH, Mr Bradley, Executive Director, Federation of Australian Scientific and Technological Societies.....</b>	<b>2</b>
<b>VAUGHAN, Dr Geoffrey Norman, Chair, Cooperative Research Centres Committee.....</b>	<b>63</b>
<b>WALTERS, Mr Colin John, Group Manager Science Group, Department of Education, Science and Training .....</b>	<b>78</b>



**Committee met at 8.34 a.m.**

**CHAIR**—I declare open this public hearing of the inquiry into the Office of the Chief Scientist. On 11 May 2004 the Senate referred to the committee an inquiry into the Office of the Chief Scientist, with particular reference to its functions and the appointment to the position of Chief Scientist of someone who concurrently holds a position in a research institute or commercial enterprise which might give rise to a potential conflict of interest. The committee has also been asked to consider the issue of whether there should be statutory criteria for the appointment of a chief scientist.

Before we commence taking evidence today, I remind all witnesses appearing before the committee that they are protected by parliamentary privilege with respect to the evidence they give. Parliamentary privilege refers to the special rights and immunities attached to parliament or its members and those who appear before its committees. Parliament must function without obstruction and people must be able to give evidence to its committees without fear of prosecution. Any act by any person which disadvantages a witness as a result of evidence being given before the Senate or any of its committees is treated as a breach of privilege. I welcome observers to the hearing today. I wish to advise that Senator Natasha Stott Despoja joins us today from Adelaide via a telephone hook-up.

[8.35 a.m.]

**BALDWIN, Dr Kenneth George, Chair, Policy Committee, Federation of Australian Scientific and Technological Societies**

**SMITH, Mr Bradley, Executive Director, Federation of Australian Scientific and Technological Societies**

**CHAIR**—Welcome. The committee prefers all evidence to be given in public. However, it will consider any request for all or part of the evidence to be given in camera. The committee has before it submission No. 13. Are there any changes or additions that you would like to make to that submission?

**Mr Smith**—No, thank you.

**CHAIR**—I now invite you to make a brief opening statement before we begin questions.

**Mr Smith**—The Federation of Australian Scientific and Technological Societies, or FASTS as it is better known, is a peak representative body of 60,000 scientists and technologists in Australia. FASTS believes that the necessity for all levels of government to be well informed on science has never been higher. Science and technology are ubiquitous throughout our social, environmental and economic domains. The capacity of government to make good policy on a wide range of areas, including health, environment, agriculture, communications and quarantine, is increasingly dependent on good science as an input, hence the necessity for a chief scientist is getting greater.

FASTS believes that the key attributes that should inform the selection of a chief scientist must include that they be a distinguished scientist with a proven track record in research in universities, the public sector, the not-for-profit sector or industry, and that they should be an actively practising scientist at the time of their appointment. For the record, FASTS believes Dr Batterham is a first-rate scientist with a distinguished record of publications and other outputs, including patents. He has demonstrated, through *A chance to change* and other contributions, that he is fully alive to a wide range of policy issues concerning science and technology.

FASTS believes that, for the role of the Chief Scientist to be effectively carried out, the Chief Scientist must have extremely good linkages and good communication with funding agencies in the sector and industry groups. The Chief Scientist should, at all stages through their tenure, maintain good knowledge of cutting-edge developments in science. FASTS believes that the Chief Scientist should be independent of the operations and assessment of individual funding decisions and have no bureaucratic or line management responsibilities. FASTS believes that the Office of the Chief Scientist should be restored to the Department of the Prime Minister and Cabinet, to help encourage a whole-of-government approach to science and science technology policy. FASTS also believes that the position of the Chief Scientist should be full time. This reflects the importance of science technology for economic, social and environmental considerations and also the crucial role of good science in forming policy in those areas. Not only is the role of the Chief Scientist immense; making it a full-time position sends a strong



signal that the government considers science to be of fundamental significance. We do not think that the position of Chief Scientist being full time precludes a close and continuing contact with the research sector.

Briefly on the issue of conflict of interest: conflict of interest is well understood in the research and science community. For grants and peer assessment it is a regular part of the routine of science in this country and, indeed, the developed world. For that purpose funding agencies, such as the Australian Research Council and the National Health and Medical Research Council, have developed robust guidelines for the management of conflict of interest. Conflict of interest is understood broadly in the research area. It is not just about pecuniary interest; it relates to family association, linkages with institutions and so on, and I think it is important to make that point. We would simply add that any person who is selected as the Chief Scientist would always have the potential for a conflict of interest, irrespective of whether they are full or part time, given that a recently active scientist will have prior commitments and may well be looking to their future prospects after the position.

**CHAIR**—I would like to begin by indicating, at least on my behalf and I presume on behalf of the members of the committee, that no-one has raised with this committee any question of the Chief Scientist's international reputation as a scientist, which is formidable, or his being a person of significant scientific reputation, both in his publications and his qualifications. The issue of whether or not the Chief Scientist is a great scientist is not a matter that is before the committee. I do not believe anyone is going to argue that case. I have noticed that within many of the submissions there seems to be an obligatory tipping of the hat to that proposition when it is not necessary; it is accepted.

I will now turn to the issue that is before the committee—that is, the question of the definition of conflict of interest. What interested me about your submission was the approach you took on that matter. Can you expand on how professional scientists see the different descriptions and roles of the code of conduct and conflict of interest across the NHMRC, ARC, the Public Service and CRCs—all of which, of course, have quite detailed conflict of interest provisions within their guidelines. Could I get a view from FASTS on that issue.

**Dr Baldwin**—We are well aware, as scientists who participate in that process, of the rules of conflict of interest. We believe the procedures that are in place in organisations like the ARC are thorough and fair and are practised in a way that gives every confidence in the outcomes of those funding agencies. It is quite clear from the guidelines that are presented in these agencies that when somebody has a real or even a perceived conflict of interest then they should stand aside from the proceedings, or at least make it known to the chair of the particular committee that there is a potential for this conflict of interest to exist. We believe that the procedures that are then in place to enable that person to remain apart from the deliberations of those committees are as good as one could possibly expect to make them.

**CHAIR**—Specifically within those guidelines there appears to be a range of issues canvassed to varying degrees. I ask the witnesses: to what extent do you believe that the question of conflict of interest is confined to the issue of pecuniary conflicts of interest and to what extent are there broader considerations within the established administrative practice within the Commonwealth of Australia for the administration of Commonwealth grants for scientific and research purposes?

**Dr Baldwin**—Certainly these conflicts of interest extend beyond the direct pecuniary involvement of a researcher or a scientist in any of these funding agencies' decisions. They involve interest that may arise because you are associated with a grant holder who is being considered, they may arise from family relationships or personal relationships with potential grant holders and they may arise because there are professional interests that transcend the institutional boundaries, but nonetheless could be perceived as having a direct concern in the outcome of a particular grant being issued. It is not simply as narrow as the pecuniary involvement of the person involved; it goes to a much wider range of issues.

**CHAIR**—Is it reasonable, under those arrangements and the current practice, that conflict of interest goes not just to issues of family and whether or not you are associated in a financial way with a specific proposal but also that you might be associated with a rival proposal?

**Dr Baldwin**—That is correct.

**CHAIR**—That is standard practice?

**Mr Smith**—Yes.

**Dr Baldwin**—On the other hand, having said that, if one debarred everyone who had the potential for involvement in a rival proposal from assessing proposals by their peers, you might end up with a peer review system with no personnel to actually operate it. So there have to be limitations on where you could have a potential interest, because you could have the potential to put in a competitive bid for the grant being proposed.

**CHAIR**—In his submission to this inquiry, the Chief Scientist acknowledges that there is undoubtedly a public perception of conflict of interest in regard to his work. Have you read that submission?

**Mr Smith**—Yes.

**CHAIR**—In your judgment is that a fair conclusion for the Chief Scientist to draw?

**Mr Smith**—We would agree that there is an appearance of a conflict of interest. The issue is whether there is in fact a conflict of interest.

**CHAIR**—What is your judgment on that?

**Mr Smith**—We have seen nothing that has demonstrated a real conflict of interest.

**CHAIR**—A 'real' conflict of interest? But do you think that the Chief Scientist's work fits within the operation of the Australian Public Service guidelines?

**Mr Smith**—That is a little problematic to the extent that the role of the Chief Scientist is not that of a public servant. In this particular case it is a part-time position. So I am not sure that the scope of the APS guidelines would fit totally with the current position.

**CHAIR**—The problem is that the department of education tells us—and furthermore the contract, from my reading of it, specifies—that the Chief Scientist will work within the code of conduct and the conflict of interest provisions of the Australian Public Service.

**Mr Smith**—The situation is in effect that the Chief Scientist has two conflict of interest regimes: the APS plus the contractual.

**CHAIR**—Plus the CRC, the ARC and the NHMRC. So surely there are about four sets of guidelines that he must work within?

**Mr Smith**—Yes.

**CHAIR**—If that is the case, the issue surely goes much broader than whether or not there is a direct financial benefit; it goes to the issue of whether or not it is appropriate for a person who works for a private company to be directly involved in research projects on which judgments are being made by others. Would you not agree?

**Mr Smith**—I do not entirely agree.

**Senator JOHNSTON**—I want to go back to the issue of the Chief Scientist being a part-time position holder. I think that one of the primary contentions of your submission is that it should be a full-time position. I believe that Queensland and Victoria have both appointed chief scientists to part-time positions. Do you know the rationale behind the part-time basis for the position of Chief Scientist?

**Mr Smith**—For the Commonwealth or for the states?

**Senator JOHNSTON**—For all of them.

**Mr Smith**—For the Commonwealth, the argument put forward by the government is that they wish to have an appointee who is active in industry research throughout their tenure. I am not sure about the rationale behind the part-time status of the state appointments. I make the observation that the Commonwealth has the primary role for science funding and policy in this country. So you could argue that the Commonwealth has much broader scope.

**Senator JOHNSTON**—Rather than that, isn't it likely that it is reflecting the fact that these very senior scientists have enormous opportunities out in the commercial world and if government is going to benefit by having their input then the benefit is going to be on a part-time basis?

**Mr Smith**—That would be one view. Another view would be that the benefits the government are going to get from a full-time position will far outweigh that.

**Senator JOHNSTON**—I am interested to know why you would say that. Where is the benefit in detriment? Here we have got what I see as being a very esteemed, learned scientist—probably our premier scientist, if I may say so, on a national level. We have got him for two days a week; I think that is the position. Where is the problem in that?

**Mr Smith**—Think of the output if he were full time.

**Senator JOHNSTON**—What have you got to suggest that there is any benefit in the overall term of reference? He is providing advice; he is doing all sorts of things under his term of reference to the Prime Minister. Where is the upside in having him do it for three days extra rather than just the two days? Isn't it a question of efficiency and ability? I think it is a bit notional to say he should be doing five days instead of two.

**Mr Smith**—FASTS's view is that the importance of science, and science in forming policy, is enormous and fully warrants a full-time position.

**Senator JOHNSTON**—I think that is a good view, but I just want to know what, practically, that means. Where is the actual benefit in real, tangible terms? I think you are right to say the position needs to be acknowledged as a full-time position, because science has an issue with the way it is perceived by the community and the commercial community to some extent. What I am saying to you is: show me the actual benefit. I think esteem and recognition are good—they are to some extent legitimate—but let us talk in practical terms. Let us talk in terms of something that means we are getting more than two days worth. Give me an example, if you would, of where we suffer a detriment by having him for only two days. What is a tangible upside in having him for five days? I do not think there is one.

**Dr Baldwin**—One of the things that I think we have suggested in our submission is that the Chief Scientist position could well return to the portfolio of Prime Minister and Cabinet—

**Senator JOHNSTON**—Yes.

**Dr Baldwin**—and we are suggesting that because of the all-pervasive role that science plays now across government portfolios. In answer to your question, if that were indeed the case then the Chief Scientist could have far greater input into a range of different departments and offer advice across a whole range of areas that in the present situation is somewhat restricted simply by time constraints.

**Senator JOHNSTON**—But that goes to the terms of his contract, doesn't it? That is what you are complaining about. You are saying his appointment as a foundation stone is on inappropriate grounds. I am saying, 'Well, we've got the contract, we've got to work with it.' He provides advice to the Prime Minister; he draws the Prime Minister's attention to emerging issues in science engineering and innovation; he chairs the standing committee of the Prime Minister's Science Engineering and Innovation Council; he assists in the coordination of government activities; and he fosters close and effective working relationships between government and organisations with responsibilities for science et cetera. All I am saying is: tell me how he is going to do that better over five days instead of two.

**Dr Baldwin**—I do not necessarily think that he is performing below his level of capacity; all I am saying is that more is better—and more involvement across a range of government portfolios will provide a much greater return on the role of Chief Scientist, because he is able to advise across a full spectrum of issues.

**Senator JOHNSTON**—All right. Can you think of an issue that he would be able to advise on better over five days as opposed to two?

**Mr Smith**—A major area of concern is how Commonwealth and state jurisdictions operate and overlap. There are gaps. There is an enormous amount of work to be done through a whole range of particular areas. Clearly, if you are talking about a two-day appointment, you will be prioritising. There are things that will not get addressed. There is one area that a lot more could be done with where there are problems across a whole raft of particular areas which do not get addressed. That is an area that a full-time chief scientist could fruitfully address.

**Senator JOHNSTON**—Isn't the role one of gathering these things together? The Chief Scientist has a reporting function, he assists, he fosters, and he provides advice. The benefit that we are getting from this man is that he brings an overview. He does not bring the nuts and bolts or the elbow grease to gather all this information together. He brings an overview on a direct one-on-one basis in terms of scientific input at a senior government level. Isn't that what the job is?

**Mr Smith**—Certainly. It is our view that the job could be done better with a full-time position.

**Senator JOHNSTON**—Have you read the terms of his contract?

**Mr Smith**—Yes.

**Senator JOHNSTON**—Do you have any issues with respect to that, save for the fact that it is a part-time position?

**Mr Smith**—In its scope, no. There is an issue about whether the contract is the best way to do it as distinct from a Public Service position or a statutory position. We regard the contract as generally sound in its scope.

**Senator JOHNSTON**—Why do you think that a contract position is not the best way to go? That is the inference I am drawing from what you are saying.

**Mr Smith**—I think the inference is that our preference is other. Having a preference does not necessarily mean that we are negative about the current position. The problem with a contract is that it is not necessarily entirely transparent—what are the selection criteria and selection processes?

**Senator JOHNSTON**—That is not about the contract. That is more about who appoints him.

**Mr Smith**—It is still about the contract to the extent that it is not a public document in the same way that a statutory or Public Service position is.

**Senator JOHNSTON**—Okay. Have you seen the contract?

**Mr Smith**—I saw it as published by the department in their submission. I had not seen it before that.

**Senator JOHNSTON**—Having now seen it, I think it is just a straightforward contract with a broad number of safeguards, given the acknowledgment by your organisation and the contract that a conflict of interest is routinely understood to exist in such a situation as we have with the Chief Scientist.

**Senator LUDWIG**—Is that answering a question or asking a question, Chair?

**CHAIR**—I appreciate your assistance. Senator Johnston, perhaps you could put a question to the witnesses. I draw your attention to the time.

**Senator JOHNSTON**—If I am out of time then I am out of time. I have not been told what the time allowed for questions is.

**CHAIR**—We try to keep a reasonably even distribution.

**Senator JOHNSTON**—When you say you understand conflicts of interests in circumstances such as these and they are routinely dealt with, how does that happen? Is that unique to senior scientific appointments?

**Mr Smith**—It is absolutely common throughout any regime, where it is contestable, to have peer review: the Australia Council for the arts, the Australian Research Council, NHMRC; conflict of interest is a routine part of any peer review process.

**CHAIR**—That is why it is in all the guidelines.

**Mr Smith**—That is right. It is not just science; it is a broader thing of contestability.

**Senator BROWN**—You have said that conflict of interest is possible irrespective of whether it is a full-time or part-time position. It seems logical to me that if you are working part time as Chief Scientist and part time in a commercial area that has competition for public funds then immediately a conflict of interest may arise. If you are working full time, that is not there. In terms of looking at conflict of interest, the simple fact of working full time, being contracted or appointed to the government, eliminates some of the potential for perceived or real conflict of interest.

**Dr Baldwin**—On the other hand, a chief scientist may have a substantive position with an organisation, then be released from that organisation for a period to serve as Chief Scientist and then return to that organisation following that period. That would differ very little from maintaining a couple of days a week position with that organisation as Chief Scientist. It is a continuum—that is what we are saying.

**Senator BROWN**—And no different?

**Dr Baldwin**—I do not think there is a great deal of difference between somebody being seconded to the position of Chief Scientist and somebody still being employed by an organisation while they are Chief Scientist. There is not a great deal of difference, because the same issues arise in either case: do they have an allegiance, an interest or a benefit that could be derived by their association with that organisation.

**Senator BROWN**—Do you think the same, Mr Smith?

**Mr Smith**—That is the answer of FASTS.

**Senator BROWN**—The Chief Scientist's contract finishes with section 16(1) saying:

The Chief Scientist warrants that to the best of his knowledge after making diligent inquiry, at the date of signing ... no conflict with the interests of the Commonwealth exists or is likely to arise in the performance of duties ... except for a conflict that may possibly arise by virtue of his employment by Rio Tinto Services Ltd.

How do you read that?

**Mr Smith**—I read that as a very straight proposition. Given that he is a part-time employee of Rio Tinto, that allows for the possibility of a conflict of interest. That is a recognition of that risk, rather than a papering over of that risk.

**Senator BROWN**—And you do not think it would be any different if he were not still employed by Rio Tinto?

**Mr Smith**—He would still always have a potential conflict of interest, given prior associations and potential future associations, whether in the public or private sector.

**Senator BROWN**—No different to still working with the organisation?

**Mr Smith**—There is still the potential for conflict of interest.

**Senator BROWN**—And the potential is the same? This is an important point.

**Dr Baldwin**—It depends on the relationship at the time. If you worked for an organisation many years ago, then quit, moved on to other things and then became Chief Scientist, I do not think it would be entirely reasonable to say that you had a conflict of interest, because time would have passed by. But, on the other hand, if you have been released by an organisation to take on the role of Chief Scientist and there is a possibility that you will then go back to that organisation after that period, I think there is a potential for conflict of interest. Again, like we said previously, there is a continuum of degrees here and you have to be very careful—as, indeed, people always are when it comes to contestable funding—to make sure that there is no perceived conflict of interest.

**Senator BROWN**—But—and I have politicians in mind here—you think there is no difference between a chief scientist who keeps working with an organisation and is remunerated by an organisation which is competing for public funds and a chief scientist who severs that connection while he or she is the Chief Scientist?

**Mr Smith**—Certainly, the appearance would be greater, but as to whether there is an actual conflict of interest, in terms of the practices, it may not necessarily be so.

**Senator BROWN**—Interesting. In your opinion, what is meant by:

... except for a conflict that may possibly arise by virtue of his employment by Rio Tinto Services Ltd.

What conflict would arise by virtue of that employment?

**Mr Smith**—If there were a proposition to fund Rio Tinto for a particular project, that would be a case in point.

**Senator BROWN**—And how do you get round that conflict?

**Mr Smith**—The Chief Scientist should play no role at all in the determination of that funding to Rio Tinto.

**Senator BROWN**—And, as far as you can see from the evidence presented here and from what you know, that is how the situation has been?

**Mr Smith**—We are not aware of any situation where the Chief Scientist has acted in breach of conflict of interest provisions in his position.

**Senator BROWN**—The Chief Scientist has an office in Rio Tinto which is publicly funded.

**Mr Smith**—I am sorry, but I am not sure that is correct.

**Senator BROWN**—Aren't you?

**Mr Smith**—I am not aware that the Commonwealth funds the office at Rio Tinto.

**Senator BROWN**—No; the office of the Chief Scientist at Rio Tinto.

**Mr Smith**—I am sorry; I misunderstood you.

**Senator BROWN**—What do you think of that?

**Mr Smith**—First of all there is the question: should the Commonwealth be funding a position at a commercial enterprise at all, and if so in what circumstances? If for some reason—and I am not talking about Rio Tinto here but more generically—there is Commonwealth funding to fund a position, then there should be a contestable process by which that is arrived at. So, if there was a pot of money under industry funding and Rio Tinto applied for it, along with others, and Rio Tinto's was judged to be the best application, we would regard that as sound.

**Senator BROWN**—In my reading, there is \$125,000 per annum set aside for the Chief Scientist under the Office of the Chief Scientist's budget—that is some \$1,200 per working day. It says:

The amount of \$125,000 allocated to the Chief Scientist above includes travel costs, travel allowances and reimbursement to Rio Tinto for secretariat support provided from the Melbourne Office.

What do you think of that?



**Mr Smith**—If the secretariat support was purely for airline and hotel bookings in their capacity as working for Commonwealth, that would seem to be reasonable. If it was broader than that, and the funding was for secretariat support to do Rio Tinto business, then that would not be appropriate.

**Senator BROWN**—How do you separate those two things? Doesn't the very fact that the Office of the Chief Scientist is located in a major company, from which he comes, present the inevitability of a conflict of interest—and obligation, if you like?

**Mr Smith**—Yes, it is inevitable that there is the potential for conflict of interest. The Chief Scientist in his own submission acknowledges that.

**Senator BROWN**—Yes, and it is in the contract. But then, when you go to the next step and have the Office of the Chief Scientist established in his home company—

**Mr Smith**—I am not sure that that is correct, Senator. The office, as I understand it, is in DEST, and that is serviced in Canberra. If you are talking about funding for the secretariat support in Rio Tinto, I think that is a question for the department—the question of how much is actually devolved for that. Are we talking about a few thousand dollars, to cover costs for airline bookings, for instance, or are we talking about a substantial amount? That is a question we cannot answer. You will need to take up with the department how much is actually devolved for that support.

**Senator BROWN**—Whatever the amount is, do you feel comfortable with Rio Tinto receiving money to provide secretariat services for the Chief Scientist?

**Mr Smith**—If the secretariat services are purely enabling the functioning of the Chief Scientist in their role for the Commonwealth—booking airline tickets or hotels—we would not regard that as problematic.

**Senator BROWN**—But the Commonwealth has enormous facilities for booking airline services and hotels. It does it for thousands of people, in effect.

**Mr Smith**—I understand that. The question is: what does that money for secretariat services get used for—and we cannot answer that. I do not know.

**Senator BROWN**—I am just asking you as a scientist: don't you think that that arrangement would have been much better if it had been kept within the Commonwealth and not franchised out, effectively, to Rio Tinto?

**Mr Smith**—Until we know how much has been devolved for the payment of services, we cannot comment—other than the comments we have made.

**Senator BROWN**—Why give one dollar to a corporate entity, which is competing for Commonwealth funds from time to time, to provide a service which the Commonwealth itself could provide?

**Mr Smith**—If it is deemed by the minister that, for the sake of practicality, it is worth paying a dollar for them to book the occasional airline ticket, then that would not be unreasonable.

**Senator STOTT DESPOJA**—I will ask a couple of questions and, in the interests of time, I can put the rest on notice, if that is preferred. In response to your comments that the position should be a full-time position, I note that FASTS was established in 1985. I am wondering if this has been a long held position of FASTS, particularly during the last two part-time appointments.

**Dr Baldwin**—Yes, that is a long held position of FASTS. If you look back through the FASTS policy documents you will see that the first one the policy committee—which I chair—produced in 1996 had that as the stated position of FASTS. If it was not that year it might have been the next year. We have always believed that the importance of science in Australia's government warrants the full-time appointment of a Chief Scientist.

**Senator STOTT DESPOJA**—Dr Baldwin, are you aware of a government policy change? Why has this government changed from having a full-time Chief Scientist to a part-time one? Were you involved in any of those discussions at the time?

**Dr Baldwin**—No. FASTS were not involved in any of those discussions. Earlier we stated what the rationale for the change is, from our understanding. We do not agreed with that rationale but, on the other hand, we have not actively participated in this change.

**Senator STOTT DESPOJA**—Senator Johnston spoke about whether having a part-time chief scientist would be to the detriment of the government and Australia. What do you think having a part-time chief scientist says to the national community, particularly at international events? What does that say about Australia and how our government values science?

**Dr Baldwin**—You broke up a little bit during that question, but I take it that you are asking whether the fact that the chief scientist role is part time sends a message to the international community.

**Senator STOTT DESPOJA**—Yes.

**Dr Baldwin**—It depends on the knowledge of the international community because chief scientists in different countries play different roles. In the UK, the chief scientist has lines that report directly to him and he is involved in the funding agencies. It is a very different role; it is not simply an advisory role. So you have to have an understanding of what the role of the chief scientist is in each different country, in order to make a judgment on that. Indeed, the chief scientist role in Australia is an advisory role, so you have quite a different situation if you compare the position here to that in the UK.

But I would have to say that having a part-time position, irrespective of your knowledge of the world situation, would perhaps indicate to the uninformed that the job here did not require a full-time appointment, which might reflect on the relative value attached to that position. But to an informed person that might be a different call.

**Senator STOTT DESPOJA**—Are you aware of the international perception of our chief scientist position? I am not talking about qualifications and whether or not our chief scientists

are brilliant scientists. I am just asking about international perceptions of our position as it currently stands—in relation to it being part or full time are positive.

**Dr Baldwin**—We have no hearsay or other evidence on that topic.

**Senator STOTT DESPOJA**—In response to Senator Johnston's question about the contract, Mr Smith said that the contract was sound in its scope. Do either of you believe that there should be any additional terms in the Chief Scientist's contract? For example, are there any specific tasks that FASTS believe are important to the role of chief scientist that are not actually a term of the current contract? Would you suggest additions or specific changes to that contract?

**Mr Smith**—Not specifically to the contract. The issue of the scope perhaps goes to the breadth and the role of, say, PMSEIC and what role that may have or what its scope is. That is a question that is implicit in the contract, by virtue of the Chief Scientist's executive of that organisation, but that is a different question.

**Senator STOTT DESPOJA**—In your submission you indicated that if the position of chief scientist was a statutory one then PMSEIC should also be a statutory body and it should only be a statutory body if it took on an expanded role. Is this a model that you think the government will or should look at?

**Mr Smith**—We certainly think that there is a case for consideration of the role of PMSEIC. Currently it is hard to justify making it a statutory authority or giving it a statutory basis, but we would argue that there is a case for expanding the scope and role of PMSEIC, in which case you may consider making it statutory.

**CHAIR**—We are going to have to wind up this session.

**Senator STOTT DESPOJA**—That is okay. I would like to ask witnesses whether they will accept questions on notice.

**Mr Smith**—Certainly, Senator Stott Despoja.

**CHAIR**—Senator Ludwig has a couple of matters that he wishes to put on notice as well. Thank you very much for your appearance here today.

[9.17 a.m.]

**JACKSON, Mr Erwin, Energy Reform Campaigner, Australian Conservation Foundation**

**REYNOLDS, Ms Anna, Manager, Climate Change Program, World Wide Fund for Nature**

*Evidence was taken via teleconference—*

**CHAIR**—Welcome to our next witnesses, who are joining us via telephone hook-up. The committee prefers that all evidence be given in public. It will, however, consider requests for all or part of your evidence to be given in camera. The committee has before it submissions 16 and 2. Are there any changes or additions that you would like to make?

**Mr Jackson**—No.

**Ms Reynolds**—No.

**CHAIR**—I would now invite you to make a brief opening statement.

**Ms Reynolds**—Thank you. I guess the concern that we highlighted in our submission is our concern that the government is receiving unbalanced advice because of the arrangements involved in the Chief Scientist being part-time. It is unbalanced advice on one of the most important and challenging issues facing government—and the government really does need very solid, well-rounded advice. We are concerned that our Chief Scientist is obsessed with one potential solution to the issue of greenhouse gases—and that particular solution benefits the company that he works for part time. It is a clear problem and one that we think is damaging for the government and also for the status of the Office of the Chief Scientist, which we think is a very important position in Australian government.

**Mr Jackson**—Thank you for giving the Australian Conservation Foundation the opportunity to present here this morning. Firstly, I would like to set the context for the Australian Conservation Foundation's concerns. I will use a quote from the UK government's chief scientist, who said:

Climate change is the most severe problem that we are facing today, more serious than the threat of terrorism.

It is in this context that we are already seeing Australia suffering from crippling drought. In our cities we are seeing water restrictions—and obviously our farmers are suffering. Recent work by scientists at CSIRO points to the fact that if global temperatures increase by only 2½ degrees, 97 per cent of the Great Barrier Reef will bleach every second year. If we are to avoid these kinds of catastrophic impacts Australia and other industrialised nations have to reduce their emissions by more than 60 per cent by 2050. It is within this context that the ACF holds the view that the simultaneous employment of a person as Chief Scientist and as an employee of a major corporation does give rise to a real conflict of interest, as well as a very real and deeply damaging public perception of such a conflict.

We believe that the Chief Scientist's dual employment has led to the Australian government overemphasising geosequestration as a solution to climate change—as opposed to taking a more balanced approach to tackling the greenhouse problem in this country. Nowhere is this more obvious than in the recent energy statement from the Prime Minister. We saw there a paper which basically supported the continued use of coal. While doing little to rein in Australia's greenhouse gas emissions from the energy sector, it failed to set long-term greenhouse pollution targets, it failed to set targets to expand the renewable industry and it failed to make polluters pay. In short, the main beneficiaries of that energy policy are resource intensive companies such as Rio Tinto, which clearly favour geosequestration as a solution and have opposed expansion of renewable energy targets. The real losers in that policy have been the environment, our health, our economy and our kids. In favouring geosequestration as a technology the government has decided that we only have one lifeboat to save us from climate change. But, unfortunately, we actually do not even know if that lifeboat will float yet: this technology is unproven on any scale.

In conclusion, we do believe that there is a very real conflict of interest in the Chief Scientist's present employment arrangements. Public perception of such a conflict is deeply damaging to the very important role that the Chief Scientist plays within society, as Anna has already said. It places the Chief Scientist in a basically impossible position, because he has two divergent masters: the Australian national interest is not the same as Rio Tinto's in this particular case. We certainly believe that there is a conflict of interest there, which should be directly addressed by the Australian government. We also believe that the Chief Scientist's position should be a full-time one, given the importance that science plays in determining responses to climate change.

**CHAIR**—I will begin by asking whether it is the case that both organisations believe that the position of Chief Scientist should be full time rather than part time? Secondly, can you enlarge on why?

**Ms Reynolds**—We certainly think it is an important position to have as a full-time position. Around the world where there are other offices that are similar to that of the Office of the Chief Scientist, the chief scientists have full-time positions. Increasingly, issues like climate change demand a lot of up-to-date scientific advice so that government is in touch with all the latest discussions and debates. The Chief Scientist needs to attend a range of fora and conferences to hear about the latest information and that simply is not possible with a part-time position.

**Mr Jackson**—I broadly agree with what Anna is saying. Science has always been a key element in determining any government's response to climate change. We are seeing climate change emerge as probably the most important political issue on the global stage. Just last week we saw France and the UK commit to going further on this issue, and Tony Blair will take it to the G8 next year. It is a fundamental issue. Since the late eighties, we have seen science playing a key role there. There is a vast amount of scientific work happening—determining the impacts of climate change, looking at any potential strategy to adapt to climate change and looking at mitigation options. Given the amount that is going on, I think it would be almost impossible to have someone who—with a range of responsibilities across the entire scientific debate in this country—was able to give a fair and balanced view of all of those issues. Expanding the position to a full-time one would give that person a better grasp of the issues and potentially a more balanced view of what is happening in climate change science—from impacts right through to mitigation.

**CHAIR**—Both of you have indicated that you believe that there is a conflict of interest in the operation of the present Chief Scientist's work. I understand that both of you are essentially saying that that conflict of interest arises from the Chief Scientist's position in relation to issues on global warming. Is it the case that your view stems from a difference of opinion with the Chief Scientist on that matter or from evidence that suggests it goes beyond a difference of opinion? I ask you by way of illustration: would you share the same level of concern if the Chief Scientist was a technologist for a solar energy company and he was arguing the case for increased resources for alternative energy or alternative energy research?

**Ms Reynolds**—It is hard to give an exact answer on your question about a hypothetical situation that is opposite to the actual one. I think everyone would feel a little uncomfortable and would still recognise that a conflict of interest existed if someone was working part-time as Chief Scientist and the interests of the company they were involved in could be seen coming out in their advice. Regardless of whether they were sitting there promoting solar energy in their role as Chief Scientist, if you knew they worked for a solar company you would still feel that that was a bit wrong. You can see that is a similar situation to that of the current Chief Scientist when you read the material he is responsible for putting together.

I draw the committee's attention to the Prime Minister's Science, Engineering and Innovation Council report, entitled *Beyond Kyoto*. It was not solely authored by the Chief Scientist but he is the chair of that committee and it is his key project. Information contained in that report about the technologies of geosequestration—which the company he works for would benefit from and is intimately involved in—are quite misleading. The advice given to the government in that PMSEIC report about the readiness of that technology, its cost and how it compares to other greenhouse gas mitigation options is quite misleading. For example, one quote from the report says:

Of these options—

it has run through the whole range of commercially available clean energy technologies—

the production of electricity using coal gasification and sequestration of CO<sub>2</sub> in geological structures appears to offer the best chance of large scale GHG mitigation.

That is a very controversial opinion. It is certainly inaccurate from my perspective—and, I think, from a range of other perspectives. On the few occasions when the Chief Scientist has talked about this issue in public, he has used figures from Roam Consulting, and those figures appear as the main figures used in the PowerPoint presentation by PMSEIC. Roam Consulting has unpublished data, and this is the unpublished data that the Chief Scientist is using. This is a Queensland consulting company, and they have said that this technology costs \$10 a tonne.

That figure that is promoted by the Chief Scientist, which does benefit the view that this technology is cheap, affordable and ready to go, is actually highly inaccurate when you compare it to other figures being promoted by, for example, the International Energy Agency or even most recently the International Petroleum Industry Environmental Conservation Association, which is a petroleum industry body. Those bodies are saying that this technology is more likely to cost \$A50 to \$A70 a tonne. So that is one example of where very dodgy advice is being provided.

The concern is that that advice, which does give a favourable and rosy view of this technology, does actually benefit the other job that this person does.

**CHAIR**—Mr Jackson, I would ask you to focus on the question, if we might. I understand the claims being made. We can establish what the slides actually say. I am wondering whether or not it is an issue about disagreement. What would the situation be if the Chief Scientist was employed by a solar energy company?

**Mr Jackson**—Firstly, I would say that I would agree with pretty much everything Anna has just said. Basically, what it boils down to for me is the question of balance. Even if you had a person from the solar energy industry, I think that everyone—the public and environment groups—would be looking for a balanced approach to tackling this problem. For example, you cannot solve this problem just with solar energy, so if a person from the solar industry said, ‘This is the only way we can solve this problem,’ then we would probably have problems with that because you need a whole range and suite of measures to tackle this problem. This is the fundamental issue that we have. At the moment, with the Chief Scientist, we do not have a balanced approach to the problem. The advice that is coming from the areas which the Chief Scientist is responsible for is not balanced. That is why we have the problem—because the balance that is currently coming certainly benefits companies such as Rio Tinto.

**Senator JOHNSTON**—Balance is a very subjective word, I think. Could you just tell the committee what your qualifications are to assess balance?

**Mr Jackson**—I think if you look at any international studies that have been done on tackling this issue, they all say that you need a suite of measures.

**Senator JOHNSTON**—I am asking you what your qualifications are. You are making a value judgment on what the Chief Scientist has said. You are expressing an opinion on the worth and value of what he has done. I want to know from what perspective you do that.

**Mr Jackson**—Fundamentally, the question would be whether the options which are being put forward in terms of tackling Australia’s greenhouse problem move us along a path which will significantly reduce our greenhouse gas emissions in the short term and the long term.

**Senator JOHNSTON**—The question is simply what qualifications you bring to the committee as a witness. I am interested to hear you substantiate your evaluation of balance.

**Mr Jackson**—I am not quite clear—are you asking—

**Senator JOHNSTON**—Are you a scientist?

**Mr Jackson**—No, I am not a scientist.

**Senator JOHNSTON**—You are a student.

**Mr Jackson**—I am an environmentalist who has spent 15 years working on this issue. I have been an expert reviewer on the Intergovernmental Panel on Climate Change.

**Senator JOHNSTON**—Do you have any formal qualifications?

**Mr Jackson**—Not on this particular issue, no.

**Senator JOHNSTON**—Ms Reynolds, do you have any formal qualifications?

**Ms Reynolds**—Formal qualifications?

**Senator JOHNSTON**—Are you a scientist?

**Ms Reynolds**—I am not a scientist. I have formal qualifications in the area of public policy. I think this is ultimately an issue of public policy. You as decision makers want the best and broadest advice that you can get. All that we are saying is that you may not be getting the best and broadest advice that you can possibly get.

**Senator JOHNSTON**—But ‘may not be getting’ is a lot different from saying that there is a conflict of interest. Which is it: we may not be getting the best advice or there is definitely and clearly a categorical conflict of interest? Would either of you like to tell me what the real situation is from your perspective?

**Mr Jackson**—I think there is a conflict of interest.

**Senator JOHNSTON**—Alright, a real conflict of interest—in what regard?

**Mr Jackson**—It is a position that advises the Australian government and the Prime Minister on science. A key part of that, internationally, is obviously climate change; it is one of the biggest issues we face. At the same time, the person in that position also works for a large resource company which would benefit from a certain policy mix.

**Senator JOHNSTON**—In what regard would they benefit?

**Mr Jackson**—Rio Tinto specifically have indicated that the priority should be greenhouse mitigation—geosequestration. They have said that we should not expand the mandatory renewable energy targets, for example; that is their clear position. That is where they think greenhouse policy should go, and that benefits them.

**Senator JOHNSTON**—Does it benefit them?

**Mr Jackson**—Of course it does.

**Senator JOHNSTON**—In what regard?

**Mr Jackson**—They have said, in terms of the work that has come through from the various industry associations they are associated with, that it would cost Australia a lot of money to implement expanded mandatory renewable energy targets. We would obviously dispute that point. They obviously want to keep expanding the coal industry and do not want to see any constraints put on the burning of coal for the production of aluminium in Australia. Potentially some of the policies that are being talked about internationally could do that.



**Senator JOHNSTON**—Do you know the measure of the benefit that geosequestration would provide to Rio Tinto?

**Mr Jackson**—We do not even know if it is going to work yet, so the benefit in policy terms—

**Senator JOHNSTON**—That is interesting. You are saying that it does not even exist, yet you say there is a conflict of interest.

**Mr Jackson**—No, I am saying that Rio Tinto benefits from the government's policy, which is to spend 15 to 20 years doing research and development on this issue and, in 15 or 20 years time, start looking at tackling the climate change problem, as opposed to tackling the climate change problem now.

**Senator JOHNSTON**—Then how does 15 to 20 years benefit Rio Tinto?

**Mr Jackson**—It means there is no carbon tax, no emissions trading scheme and no expansion of mandatory renewable energy targets.

**Senator JOHNSTON**—Correct me if I am wrong but wasn't the recommendation in *Beyond Kyoto* a 50 per cent emissions reduction, which effectively equated to far and away beyond the Kyoto target for 2008-12? Isn't that true?

**Mr Jackson**—It is certainly true that Kyoto will not stop dangerous climate change.

**Ms Reynolds**—I have the report in front of me. PMSEIC does say that we need to halve global emissions by 2100.

**Senator JOHNSTON**—Isn't that a very substantial recommendation that is adverse to the interests of Rio Tinto?

**Ms Reynolds**—Scientifically that is a fairly conservative assessment about what is needed. Many scientists around the world are saying that we need to halve global emissions by 2050, a full 50 years earlier than the PMSEIC report says. I think the PMSEIC report is correct in identifying that we need to make deep cuts, but it is probably erring on the side of caution about when those cuts need to occur. The cuts they are advocating would probably lead to much higher levels of global warming than if we can make those deeper emission cuts much earlier. The sort of dramatic and early change we need to make in our energy sector requires that the full range of technologies be adopted. The concern about the PMSEIC report—and the Chief Scientist's report—is that it does not provide the view that the full range of technologies are useful. It says that one particular technology, which will primarily benefit coal companies, is the best way forward.

**Senator JOHNSTON**—And you say that because he works for a coal company, there is a clear and existent conflict of interest?

**Ms Reynolds**—Yes, because the advice that he is giving is the ideal greenhouse response advice if you are a coal company executive.

**Senator JOHNSTON**—Are you aware of the investment by Rio Tinto in renewable energy?

**Ms Reynolds**—Not specifically.

**Senator JOHNSTON**—Mr Jackson?

**Mr Jackson**—No.

**Senator BROWN**—I might begin by saying that we are looking at an ethical issue here as well as a scientific issue, and I welcome your qualifications and the years of work you have put into this. I want to go back to your reference to the UK Chief Scientist who effectively warned that global warming is equivalent to or more threatening than terrorism to the future of the planet. From your reading of what the Australian Chief Scientist has said, what has been his public position on global warming and its impact on the future of this nation and the planet?

**Ms Reynolds**—From statements made by the Chief Scientist that I have seen, he does recognise that it is a challenge for the future. I do not think he is a strong advocate for educating decision makers about quite what a dilemma we are in and how fast we need to move, but I certainly think he does acknowledge the problem.

**Senator BROWN**—Can you remember any statement that the Australian Chief Scientist has made to the nation or to the Prime Minister about the threat of global warming that outlines that threat in detail and puts forward a program for meeting that threat?

**Ms Reynolds**—No, not at all that I have seen. Maybe that also comes from the fact of it being a part-time position. The position of Chief Scientist is not a very visible position; you just do not see or hear much from him except via the PMSEIC processes. He is not really playing a role as an educator of the Australian public or of decision makers more broadly.

**Senator BROWN**—I would like to go to the \$10 per tonne cost for zero emissions that the Chief Scientist has used. Can you cite any scientific authority that has repeated or come up with that same figure?

**Ms Reynolds**—I cannot. I have not seen anything. It is, by an order of magnitude, a much cheaper figure for the cost of this technology than any other expert energy body provides. The fact that it is unpublished data from a Queensland consulting firm makes the use of it by our premier scientific officer quite odd.

**Senator BROWN**—What is the source of that figure of \$10? The Queensland consulting company you are referring to is Roam Consulting. How did the Chief Scientist come by the information from that consultancy, as far as you know?

**Ms Reynolds**—I do not know. If it is unpublished data he must have sourced it directly from the company in some way or through a conference. But if it is unpublished, it is obviously not publicly available or in a scientific journal of any sort.

**Senator BROWN**—I am just trying to work this out. Are emission reductions the same thing as renewables?

**Mr Jackson**—There are two issues there. One is that renewables are part of a strategy to stop climate change. The other issue is that they are expensive at the moment, so we need programs to bring the cost down and expand their markets so that they can actually play a much bigger role in the future.

**Senator BROWN**—So they do the same job and they are the same thing as emission reductions?

**Mr Jackson**—It depends how you define emission reduction.

**Senator BROWN**—Let us talk about geosequestration and the zero emissions burning of coal.

**Mr Jackson**—We do not know, for one thing. We do not know whether geosequestration is going to work on the kind of scale that would be needed for it to be effective. We know that renewables and energy efficiency can reduce our emissions significantly now. We need a balanced approach which tackles this problem. On the other side of that, of course government needs to set priorities. We would certainly be of the view that renewables and energy efficiency have to be the priority, simply because we already know they work—we know, for example, in the case of energy efficiency measures that, if we implement them, we can actually benefit the economy and create jobs on a very large scale. This is where we should be putting our efforts now as opposed to waiting for some magic bullet in 15 or 20 years time which we do not know is actually going to work. That is not to say that we should not research it, because it could have a role. But it is a question of priority.

**Senator BROWN**—Ms Reynolds, you cited the International Petroleum Industry Environmental Conservation Association as having figures for zero emissions coal of between \$50 and \$70 per tonne. Is that consistent with other sources, or is there a wider range of that in your reading that is being considered as the potential cost for zero emissions, including geosequestration, from the burning of coal?

**Ms Reynolds**—Certainly those figures are what you would consider mid range. Roam Consulting is the very bottom of the barrel and then there is a big jump, I have not seen much around the Roam Consulting figure—it sits on its own and then you jump up to the next range of figures, which is around \$US40 a tonne, which is the figure from the international petroleum industry group, the source I just quoted. That is about \$A60 to \$A70 a tonne. But then the International Energy Agency estimates go up as far as \$120 and more a tonne, because this technology will depend very much on the particular circumstances. It might be cheap for gas fields and oilfields, but it might be horrendously expensive for bolting onto existing power stations in areas where there are not saline aquifers to pipe the CO<sub>2</sub> into. The cost estimates are very broad and very uncertain at this stage. But certainly no-one is talking about \$A10 a tonne; usually it is more in the order of \$50 to \$120 a tonne.

**Senator BROWN**—I see that one presentation used by the Chief Scientist puts renewables at about \$60 a tonne. Is that consistent with your thinking on it?

**Ms Reynolds**—No. Again I go to the PMSEIC report, because that really is an important document for this committee to look at in terms of analysing the balance of the advice that has

been provided. The PMSEIC does something a little bit cheeky in the way it presents the issue of costs. It puts the costs of conventional coal and gas combined cycle and zero emissions coal in their own bar graph. But then when it comes to the full range of renewables technologies that are available—commercially available—today such as wind, biomass and photovoltaics, it actually stacks the costs of them on top of each other, so in the graph it looks as though they are much more expensive, whereas in reality technologies commercially available and proven today, such as bioenergy and wind, are in many parts of the world approaching the cost of conventional power and are certainly much cheaper than the estimates for the geosequestration options.

**Senator BROWN**—Do you have any problem with the secretarial services being provided for our national Chief Scientist by Rio Tinto and paid for by the taxpayers?

**Ms Reynolds**—Again, I have a concern. It is about the perception that this is an important office, and the public wants these positions to be independent—they want all important positions to be independent. There are certainly concerns when you see situations where the Chief Scientist may or may not have a role in funding decisions and there is a decision to fund a foundation for the sustainable minerals industry, which basically goes to Rio Tinto, and then the Chief Scientist sits on the board of that foundation, which is giving grant moneys to companies that the Chief Scientist in his role with Rio Tinto is then signing research contracts with—contracts that may make Rio Tinto money from the sale of the intellectual property as a result of that research. It all looks a bit too close and muddled for the public perception to be that this is a nice, clear, independent office. It is really as much about perception as anything else.

**Senator BROWN**—Do you get the perception that the Chief Scientist has influenced the government and/or the Prime Minister to favour geosequestration over renewable energy in the disbursement of public funds?

**Ms Reynolds**—My perception is certainly that the Chief Scientist's strong enthusiasm and interest for geosequestration technology and his very effective work in promoting that to the key decision makers in government has probably been the main influence in this becoming the favoured approach to greenhouse gas mitigation by the government in the last 18 months to two years.

**Senator BROWN**—Mr Jackson, have you got any comment on that?

**Mr Jackson**—Yes. I basically agree with that. If you look at the history, you will see that, in terms of perception, it is very hard not to come to that conclusion.

**Senator STOTT DESPOJA**—Ms Reynolds, I will begin with your comments earlier in your evidence. You have used the expressions 'dodgy' and 'wrong' to describe calculations that had been made and advice that was given. I am happy for you to clarify it if I am misrepresenting what you said, but that is a very strong statement. Are you suggesting that there is a motive behind providing anything that is remotely wrong or dodgy? I think this goes to the heart of the issue or the debate about conflict of interest, which is a component of the discussion today.

**Ms Reynolds**—My particular reference to the word 'dodgy' was with regard to the use of the Roam Consulting data.

**Senator STOTT DESPOJA**—Yes.

**Ms Reynolds**—I think on anybody's judgment this data is dodgy data. There is no better way for me to describe it. I am certainly concerned that the Chief Scientist would use that in his main presentation to government rather than use sources such as the International Energy Agency or the range of other academic institutions that have got published and peer-reviewed scientific data on that topic.

**Senator STOTT DESPOJA**—Even if that advice had been used, would you have felt better if perhaps that other advice to which you have just referred was also used? I say that because I am very conscious in the scientific arena as well as in other areas, but particularly science, that there are radically differing views, debates, evidence and research to prove many different and varied cases. Perhaps sometimes there is inevitability that there will be a debate over certain research or evidence. Indeed there will always be someone to criticise a particular area of research. Would you be happier if it were seemingly more balanced as opposed to that particular piece of research being used at all?

**Mr Reynolds**—Absolutely. I think the WWF made it clear in our submission that we have not completely rejected the technology of geosequestration. We would not have an objection that a Chief Scientist promotes it and gives a cool-headed analysis of its possibilities and potentials and the range of costs that are being presented in the scientific literature. That is certainly his job. The PMSEIC report does give a range. It says \$10 to \$50 a tonne. In that sense, it does fulfil the suggestion you have made, but I think that range is not an accurate reflection of the range that is being talked about in the scientific literature. In the PowerPoint presentation, which is what the decision makers see, the range that is in the scientific literature—the balance, in a sense—is not presented at all.

**Senator STOTT DESPOJA**—Thank you for that. I am interested in your views on the appointment of the Chief Scientist, or indeed previous chief scientists, be they full-time or part-time. Do you or Mr Jackson have any views on the issue of appointment?

**Mr Jackson**—Could you be more specific?

**Senator STOTT DESPOJA**—First of all, what do you know about the appointment procedures? Do you think they are appropriate? Are they necessarily as accountable as they should be? Are the responsibilities of the Chief Scientist appropriate responsibilities in relation to the contractual arrangement? If you do not have views on this, that is okay. The appointment process is an area of the terms of reference in which I am very interested. I am interested as to whether or not either of your organisations have a view on that.

**Mr Jackson**—I think, generally, in terms of the role, and this could apply to the appointment processes and the contractual arrangements et cetera, there are two points. One is independence. This is part of the issue that we are confronted with at the moment. The perception of conflict of interest in the wider community is driven by the fact that he is not clearly independent. In terms of appointing that person, that has to be quite clear. This person has been given a high level of responsibility. He is advising very senior people in government. There is a high level of public trust there, and we cannot squander that trust. That potential conflict of interest is there and that is what is happening. Independence must be absolutely clear, as well as having an accountable

and open process. For example, his contract has not been available in the past and that does create suspicion. The community needs to feel that the person who is advising the Prime Minister on some of the most critical issues we are confronted with today does not have a conflict of interest.

**Senator STOTT DESPOJA**—Can I ask you to be even more specific in relation to defining independence? I have looked at the ACF submission, and I understand that there is a specific concern about an individual holding ‘two related but disparate positions’ without obviously having a conflict of interest. I am wondering if you can better define independence. Given comments from earlier witnesses, there is almost a sense of inevitability that any scientist, who is either recently or currently engaged, while operating as Chief Scientist, can have potential for a conflict of interest. How do you ensure that independence? How completely do you sever ties with whatever organisation or academic post is involved in order to eradicate that potential or perception of conflict of interest?

**Mr Jackson**—It is a question of potential, and you could say that hypothetically you are always going to have a level where there is a potential for conflict of interest. It is a question of ensuring that the community can feel that the processes which have been gone through have ensured this person has severed their ties and there are independent review mechanisms. For example, if the Chief Scientist were to write a report on climate change, then the background information on which that report is based should be publicly available. We are not actually seeing that, for example, with the Roam figures that are coming forward. It is those kinds of measures we are discussing. I cannot give you a range of specific things that ACF would want; it is more about general principles. That is the level we are talking about.

**Senator STOTT DESPOJA**—Ms Reynolds, do you have any thoughts on that issue?

**Ms Reynolds**—I have not got anything particularly detailed to offer to that, no.

**Senator STOTT DESPOJA**—I am curious to hear if you are aware of what relationship the Chief Scientist has with the environmental science sector? I could say the environmental sector, but specifically those involved in the environment movement to deal with these issues—as you both do.

**Ms Reynolds**—As I mentioned before, it is not a particularly visible position at the moment. There probably is not time to get out there and meet with a range of people with a range of views and also to attend a range of conferences and do whatever else is happening out there. I certainly have not really had any contact with the Chief Scientist directly.

**Senator STOTT DESPOJA**—Have you initiated contact with the Chief Scientist?

**Ms Reynolds**—No.

**Senator STOTT DESPOJA**—What about you, Mr Jackson?

**Mr Jackson**—No, my answer is the same as Anna’s.

**CHAIR**—Thank you very much for your appearance here today.

[10.03 a.m.]

**MILLER, Professor Seumas Roderick, Director, Centre for Applied Philosophy and Public Ethics, Charles Sturt University**

**CHAIR**—Welcome. Is there anything you would like to add to the capacity in which you appear?

**Prof. Miller**—The Centre for Applied Philosophy and Public Ethics is an Australian Research Council funded special research centre located at Charles Sturt University and the Australian National University.

**CHAIR**—The committee prefers all evidence to be given in public. However, it will consider any request for all or part of your evidence to be given in camera. I now invite you to make a brief opening statement.

**Prof. Miller**—I have been asked to talk in general terms about conflicts of interest. What is a conflict of interest? A conflict of interest arises for persons who occupy institutional roles—let us say a public servant who has a duty in relation to the public interest—when there is some other interest, which is an interest of a kind, which has a tendency to interfere with the judgment or decision of the occupant of that institutional role. For example, if you were a judge and you had to adjudicate a case in which your son was before you, then you would have a clear conflict of interest.

There are two general problems with conflicts of interest. One is that obviously your judgment may be infected and incorrect. That can have very bad consequences, particularly if you have an important position. The second problem that can arise is that, even if you do make the correct judgment and the judgment leads to beneficial consequences, if people realise that you have a conflict of interest, that can do damage to the office that you hold.

There are two basic types of conflicts of interest. One is where the interfering interest is of a private kind. This is where you might seek to derive a financial or other benefit from judging or deciding in a certain way. The other one, which I think is more germane to the case of the Chief Scientist, is where you have two institutional roles and therefore you have duties to different sorts of interests. On the one hand, as the Chief Scientist you have a duty to the public interest. On the other hand, as the chief technologist for a company like Rio Tinto, you have not just a private interest but a duty to the commercial interests of that company. Therein lies a problem, because where someone has duties that conflict we cannot simply appeal to their capacity to resist private temptations, which is something we can generally do with people who have fiduciary duties.

Another distinction that needs to be made is between a potential conflict of interest and an actual conflict of interest. This would be a situation where someone—and I think this is acknowledged to be the case in the contract of the Chief Scientist—has two roles which may come into conflict at some time. The suggestion is that the roles will not necessarily do so, so there is a potential for a conflict of interest. This is to be distinguished from an actual conflict of

interest, where the judgment, decision or advice to be provided is such that there is an actual conflict of interest. For example, if the Chief Scientist had to provide advice to government in relation to geosequestration and geosequestration was a policy whose implementation was in the central interests of Rio Tinto then the Chief Scientist would have not only a potential conflict of interest but an actual conflict of interest.

I think it is important also to distinguish between an actual conflict of interest and the validity of the judgment that the Chief Scientist might make. It may well be the case that the Chief Scientist or someone who has an actual conflict of interest makes an objective, correct judgment. The question is not whether or not the judgment was correct in that particular instance; the question is whether or not the two roles are such that the interests are of a kind that might tend to interfere with their judgment.

The final distinction to be made in this context is between potential and actual conflicts of interest and apparent conflicts of interest. You can have a situation where someone has a potential conflict of interest but not an actual conflict of interest but the public takes the view that they have an actual conflict of interest. It may be difficult to eradicate that view because the public is really not in a position to assess the detail which would provide them with the evidence to reasonably make that judgment.

There are basically three things you can do with conflicts of interest, depending on how important you think they are. One is simply to avoid the conflict of interest. In the case of matters pertaining to members of a magistrate's family, the magistrate clearly has to simply avoid the conflict of interest by not adjudicating those matters. In other cases disclosure may be sufficient to defuse the conflict of interest. For example, if a talkback radio person were funded by, say, oil companies to provide favourable comment and on every occasion in which he provided that comment he disclosed that he was paid by those companies, that would tend to undermine his credibility and defuse the conflict of interest. But disclosure does not necessarily defuse a conflict of interest. In the case of the magistrate, for example, all the disclosure in the world would not eradicate the conflict of interest if he is the one that makes the judgment.

The other thing that can be done as part of managing a conflict of interest is to just live with it—to just say, 'Okay, there is a conflict of interest, but we can live with it. We can live with it for a variety of reasons: maybe the stakes are not high enough to cause us concern, maybe the likelihood of the judgment being infected is so slight as to be no cause for concern or maybe we have accountability mechanisms in place such that, if there is a judgment which is interfered with, we will get to know about it.' So, that is a case where you may want to seek to manage a conflict of interest.

The final point I would make is that whether or not you want to avoid or manage a conflict of interest is also partly dependent on what you take the role of the person who has the conflict of interest to be. If you take that role to be a very important one and if you take that role to be authoritative in some sense—that is, the person who occupies that role is supposed to provide you with authoritative advice or judgments—then it looks as though you will have to take very seriously indeed any potential, actual or apparent conflict of interest that they might have. You do need them to have independence—and it is very important to ensure that they do have that.



It is also important, I think, if the role that they have is one of providing advice on matters where the people being advised—the government—do not necessarily have any great level of expertise. It is one thing to have advice from a public relations firm where the government people themselves could reasonably be expected to provide some sort of understanding of the issues.

**CHAIR**—Thank you very much, Professor Miller. Can I just indicate that there is no written submission from you and that the committee secretariat approached you to appear before the committee. I appreciate that you were able to make yourself available. Given that you have raised these levels of delineation in the questions around conflict of interest—and I do appreciate the manner in which you have put them forward—could I get, for the benefit of the committee, an indication from you of how we know that your assessments on these matters are in fact objective?

**Prof. Miller**—I have offered you assessments in relation to the concept of a conflict of interest. I have not offered you any particular assessments in relation to the Chief Scientist. I do not know enough about the role. I have tried to cast it in terms of hypotheticals: if this is the nature of the role then these would be the problems. I guess my competence lies in the fact that I am funded to think about these sorts of issues.

**CHAIR**—And I think it is entirely appropriate that in your position you make that expertise available to the parliament. Can I ask you some specifics in terms of the questions that have been put before this committee. You would be aware that some people put the view that the kinds of conflicts of interest that are relevant to the consideration of the role of the Chief Scientist are related to the question of direct pecuniary conflicts of interest. For instance, it was put to this committee through another forum, the Senate estimates, that, since Rio Tinto had no direct involvement in the solar CRC or its application for funding to the CRC Committee, the Chief Scientist's appearance on that committee throughout its deliberations was not improper. Would you agree?

**Prof. Miller**—It certainly would not be necessary for there to be a direct pecuniary interest: there are all sorts of other interests that could be relevant. I do not know if this is the case but, if it were the case that the Chief Scientist was adjudicating on a decision-making body in relation to two applications—let us say one was for a solar energy centre and the other was for a geosequestration centre—and it was in the long-term interests of Rio Tinto to have research done on geosequestration and not solar energy, then it seems that there would be a clear conflict of interest. It would not be a conflict of interest because of a private interest that the Chief Scientist had; it would be because of his capacity as chief technologist for Rio Tinto.

**CHAIR**—It was said to us by departmental officials that there was no deliberative role—that is, the decisions were made by consensus rather than by vote. Would you see that as mitigating in this matter at all?

**Prof. Miller**—If you have a decision-making body, obviously it is a collective body, so you do not have the ultimate say—you are one of many. But, if you are in a position to cast a vote, whether it is consensual makes very little difference: it is a joint decision and you are one of the individual decision makers. So I do not see that as being important. It would be important if it was the case that the Chief Scientist was not part of the decision about whether or not to go

ahead with an application. If he was simply someone whose advice was sought, it would be a different matter.

**CHAIR**—Could you enlarge then on the concepts that you have raised in regard to the question of the difference between a direct pecuniary conflict of interest and an indirect pecuniary interest—a proposition which, I am sure you would be aware, is canvassed in the ARC conflict of interest guidelines.

**Prof. Miller**—Again, there are two distinctions here. I think it is important to distinguish between the interest that resides in your duty to serve as the chief technologist of Rio Tinto and a private interest that you may have. If you have a private interest, it may be a direct pecuniary interest—that is, you will get a direct financial benefit. It may be an indirect pecuniary benefit—that is, it may be that someone else will directly get the financial benefit but that will come back to you in some form. That would still be a private pecuniary benefit, albeit an indirect one. But we do have to maintain that distinction between a private interest and the interest—indeed, the duty—that you have to pursue the interest, say, of Rio Tinto, as chief technologist of Rio Tinto. That is a different kind of situation to be in.

**CHAIR**—Professor Miller, I have many questions that I would like to put to you. I am only going to be able to put some of those to you today. Would you be prepared to take some questions and give us brief replies in writing by way of questions on notice?

**Prof. Miller**—Yes.

**CHAIR**—In regard to the Chief Scientist's situation and his role, could you comment, given your view about the different natures of conflicts of interest, on the fact that he is the chair of PMSEIC, which is an advisory body. Could you comment on how different conflicts of interest might arise in that. He is also a member of the ARC board as the Chief Scientist. While formal decisions are made by way of recommendations, it decides the allocation of hundreds of millions of dollars through ARC grants. Again, you are familiar with that process, because you are a direct beneficiary of one of those. He is a member of a CRC committee. He also represents the government at international and national meetings on science policies. He makes speeches and presentations on behalf of the government in his capacity as the Chief Scientist for the government. He from time to time produces reports and conducts reviews and evaluations of research programs. In terms of that broad range, how would you see the different elements of conflict of interest issues arising?

**Prof. Miller**—I think there are probably different types of conflict of interest in relation to each one of those roles—potentially. With the ARC, for example, if they have elaborate procedures in place and if he is simply providing input as one expert amongst many, it may be that there is not a problem. I do not know enough about his role in that body. Certainly as far as the CRC is concerned, if the situation is as you have described it, there would be the possibility of selective conflict of interest, depending on the applications. If they simply have a rule to the effect that you have got to absent yourself when you have got a direct pecuniary interest, that is too narrow and that looks like an area that would need to be looked at in terms of redesigning the mechanisms at that point in that particular area.

As far as the larger committee of the PMSEIC is concerned, I do not know enough about the roles of that committee. I know that it is an advisory board and apparently it is the principal advisory board. I presume, therefore, that in his capacity as executive officer and as the chair of the standing committee of that body, he has a significant authoritative place and therefore one would expect him to have a high level of independence.

I guess there is a difference in that kind of capacity from what there would be if you were a mere consultant and one amongst many consultants—or one voice among a number—in which case the level of independence that you would expect would be considerably less. For example, if in his role as Chief Scientist in relation to the PMSEIC he was called upon to provide an authoritative adjudication of different scientific views emanating from different quarters—for example, maybe some environmental lobby group had a particular view of what policies ought to be out there and of the scientific facts, and a corporate entity like Rio Tinto had a different view on policy and a different view of the scientific facts—then obviously the fact that he was at Rio Tinto for half the week and working for them would be a clear conflict of interest.

I think there is probably another issue which is to do with the overall level of influence that someone might have in wearing many different hats. We could take the hats separately and individually and talk about the issues and then offer a view of the overall situation and the degree of influence that someone might have in all those roles taken as a group. I am not in a position to know the extent of his overall influence, but that is something that could also be looked at

**CHAIR**—If I look at it from the other angle, is it your assessment that his employment with Rio Tinto does raise the question of a potential indirect pecuniary conflict of interest?

**Prof. Miller**—It could do so. Are you talking about a private interest? I do not know exactly what his situation is in terms of benefits that might accrue to him financially from the success of Rio Tinto. But that is another issue that could be looked at.

**CHAIR**—Is it the case in your assessment that the reason we do not as a general rule have public servants being employed outside of the public service is that we wish to avoid such a circumstance?

**Prof. Miller**—I am sorry to reiterate this, but I think it is very important to keep apart these two kinds of conflict of interest. I would see the central problem here as being that, in his role as chief technologist for Rio Tinto, he has a duty to further the interests of Rio Tinto. And that may in fact not further his own private interests. That is a clear problem for anyone who is a public servant. On the one hand you have got the public interest, which you must pursue as a public servant; on the other hand you have got this other interest, which you must pursue and which you have a duty to pursue because you are being paid to pursue it, and it is the furthering of corporate interest. The question that inevitably arises is: how do you discharge those two sets of duties when they come into conflict? That is the problem. In addition, a problem may arise for a public servant if they are working outside the public service, receiving remuneration of various kinds to work for entities that have as their main preoccupation things other than the public interest. That may raise other issues as well. I am not aware of any that pertain in this instance.

**Senator JOHNSTON**—This morning the Federation of Australian Scientific and Technological Societies assisted us with this inquiry. In their submission they say:

Issues around conflict of interest are well understood in the scientific and research communities and are routinely dealt with professionally and competently.

Do you have any expertise or specialist understanding that would question that statement?

**Prof. Miller**—I am very happy if that is the case. I have not undertaken any study of the scientific community and the way it resolves its conflicts of interest. I did look at some of the submissions, although not that particular submission. There were a number of submissions from people who were scientists, as I recall, and there did seem to be a degree of confusion about what a conflict of interest is. For example, some of them seemed to think that, if someone made a proper and reasonable judgment and was not affected unduly or unreasonably, they did not have a conflict of interest. That is just a confusion between being in a conflict of interest and not allowing it to influence you. So I think there is probably a lack of conceptual clarity in relation to these matters, judging by the other submissions I have looked at.

**Senator JOHNSTON**—The federation also said:

Any person selected as the Chief Scientist will have the potential for conflict of interest irrespective of whether they are full or part time, given that a recently active scientist will have prior involvements and may be looking to their future prospects after their term concludes.

Do you have any specialist knowledge or understanding that would dispute that assessment of this particular niche position?

**Prof. Miller**—Sure. It is true that there are many different potential conflicts of interest, and I think the tenor of some of the submissions I looked at is that you can become a little morally precious about them. That is a reasonable view to have, and you do have to manage some of them. I do not think there is any dispute about that. At the same time, we need to think about the particular conflict of interest in question. To what extent is this interest likely to have an impact, likely to influence the judgment or decision making of the person involved? To what extent is it central and very important to the interest in question that the decision go this way rather than that? If it is a relatively peripheral matter, fine, but if it turned out that geosequestration was absolutely vital to the long-term commercial interests of, say, Rio Tinto we would not be talking about a peripheral conflict of interest but about something quite important.

As for the issue of a conflict of interest arising post employment, of course this can and does happen. There are many instances of this. For example, in Japan there is documented evidence of public servants who take on positions post bureaucratic employment and so on. I think what we have to understand here is that that might merely mean that we have two problems. Of course, it does look as though simultaneous roles create problems additional to ones you might have—seriatim, as it were—since you may be called upon to make adjudications at one and the same time. That is a different and more problematic conflict of interest than the one that would follow on future employment.

**Senator JOHNSTON**—Do you accept that a conflict of interest or a potential for a conflict of interest can be adequately, appropriately and properly managed?

**Prof. Miller**—Depending on what the conflict of interest is, yes. I think the answer to that is that some can and some cannot. I gave you the example of the judge. If you said, ‘Let’s manage this. Let’s let this judge adjudicate the case but disclose it,’ and so on, it would not work.

**Senator JOHNSTON**—Do you know precisely the terms of appointment, the contractual terms and the role and function of the Chief Scientist?

**Prof. Miller**—I do not have a detailed understanding of the contractual role of the Chief Scientist. I have attempted to offer—

**Senator JOHNSTON**—Broad background?

**Prof. Miller**—responses in relation to it.

**Senator BROWN**—In December 2002 an expert advisory committee to the government selected national research priorities, which included geosequestration. In the run-up to that, the Chief Scientist made presentations to both the Prime Minister’s Science, Engineering and Innovation Council and the Ministerial Council on Energy, which is the national council of federal and state ministers on energy. In those, he put to them that zero emissions coal could be achieved at \$10 a tonne carbon dioxide. That figure came from a consultancy in Brisbane called Roam Consulting, as I understand it. If that was the case and if it was also the case that Rio Tinto had paid for that consultancy, was there a need to reveal that payment?

**Prof. Miller**—I think that, if the situation was as you have described it and if the Chief Scientist was occupying a role in which he was supposed to give authoritative advice in relation to energy policy and scientific matters, it required a high degree of independence. Therefore it would be problematic for him to be using those sorts of data sources without disclosing them, particularly given that he was also occupying the role of chief technologist for Rio Tinto. I think he should have disclosed that.

**Senator BROWN**—Roam Consulting from Queensland was sought by Mr David Cain, who was on the Beyond Kyoto working group, which had been set up to advise the Prime Minister’s Science, Engineering and Innovation Council. Mr Cain wrote to the chair of the Beyond Kyoto advisory committee, saying:

I intend to commission (at Rio Tinto’s cost) a high level model of the future emissions from Australia’s electricity generating market—under a few scenarios ... This will give us a prediction of the possible impact of zero emissions technology on Australia’s emissions from electricity generation over the next 30 years ... The model should be ready at the end of October to allow scenario testing to produce graphs for our report.

So we have Rio Tinto getting Roam Consulting to produce graphs for a report which was then used to advise government. Do you think that all the steps of that should have been disclosed at all times?

**Prof. Miller**—For the reasons I have just given, I think they should have been disclosed.

**Senator BROWN**—Do you have any trouble with Rio Tinto seeking and funding that consultancy and that information then being interpolated into advice to government?

**Prof. Miller**—Government policy, evidently, is to get as much input from as many different sources as possible, including input from consultancy groups that may be employed by entities such as Rio Tinto, so I do not necessarily think that there is a problem about sources of information of that sort. The question is whether or not there is some sort of balance in the sources of information, if there is a dispute. If there is a dispute about the kind of information that is being offered, then we would want to see some different sources. I think the other thing is that the source needs to be disclosed, because a question needs to be asked about the authority of that source, given its origins. I do not necessarily have a problem with that kind of information coming in and consultancy groups of that sort providing that information. I do not really see why there is a problem with that per se. I do not know if that answers your question.

**Senator BROWN**—Yes, it does, thank you. The Chief Scientist travels a great deal. He has, for example, an interest in artificial photosynthesis and has been to quite a few meetings where detailed technical knowledge about advancements in photosynthesis has been disclosed, and the development of photosynthesis for future commercial application is a matter of particular interest to Rio Tinto as well. Would it be your opinion that the Chief Scientist should at all times, when he is at those technical meetings, disclose his relationship with Rio Tinto, rather than appearing simply as the Chief Scientist?

**Prof. Miller**—What is he doing at these meetings?

**Senator BROWN**—He is involved in meetings where technical information is being exchanged—this is overseas as well as within Australia. Latest advances in this field are being explained.

**Prof. Miller**—These meetings are not confidential?

**Senator BROWN**—I am asking about both circumstances. Whether it is confidential or not confidential, should this disclosure be made?

**Senator JOHNSTON**—It is pretty important to know whether it is confidential or not, isn't it?

**Prof. Miller**—Certainly. Obviously, someone who is working for the government in the public interest is obliged to comply with confidentiality requirements and if this kind of information is confidential then that would make a considerable difference. However, the question is about him providing this information to—

**Senator BROWN**—No, I am saying that if he is at meetings where confidential information—let us start with that—

**Prof. Miller**—I see—should he disclose the fact that he is employed by Rio Tinto?

**Senator BROWN**—Yes.

**Prof. Miller**—I think so, yes; so that other people know that that is the case.

**CHAIR**—We are running behind schedule as always. Senator Stott Despoja, I suppose you can put your questions on notice.

**Senator STOTT DESPOJA**—Yes I will, if that is acceptable to the Professor. I heard him say he would take some from you.

**CHAIR**—If it is too onerous, you do not have to do it, Professor. You are a private citizen, but it is a request to you from the committee.

**Prof. Miller**—I am happy to do it, but I hope you understand that I am going overseas tomorrow.

**Senator STOTT DESPOJA**—I can do them today. They are mostly follow-up questions.

**CHAIR**—Thank you very much, Professor.

**Proceedings suspended from 10.37 a.m. to 10.50 a.m.**

**BATTERHAM, Dr Robin John, Chief Scientist**

**CHAIR**—Welcome. The committee prefers all evidence to be given in public, although it will consider any request made for evidence to be given in camera. The committee has before it your submission, No. 18. Do you wish to make any changes or additions to that submission?

**Dr Batterham**—No.

**CHAIR**—I invite you to make a brief opening statement.

**Dr Batterham**—Thank you for the opportunity to make a submission and an opening statement. I do not wish to say anything different from what is in the submission, but I will highlight a couple of points by way of emphasis. The first point concerns the reasons why I accepted the invitation to be Chief Scientist and why I have enthusiastically pursued my duties in that role since my appointment. It is, first and foremost, that I see innovation and its scientific underpinnings—not just for one particular industry but across the board—as critical to this country's future. If we want options along the path to sustainability, we have to innovate. Further, I am in—I would not call it a unique position—a somewhat rare position in Australia in that I have experience and a track record in the scientific fields of endeavour, research and development, and equally an involvement in the development and application of science and innovation in industry.

I brought a somewhat unusual background to the position. It is one which, I am sure, was in line with the government's intention in making the appointment, where the emphasis in Australia needed to be seen as being more on innovation in industry—including the levels of R&D, for example—than on the front end of the equation. That currency of experience and networks is something I have maintained by having the two roles. Also, perhaps egotistically—but I will still state it—I felt that through my energy, enthusiasm and a working knowledge of these two broad arenas I could make some difference to the perception of the importance of the role of science and innovation in Australia. That is the first of the three points I would like to make in opening; the others are a little briefer.

My second point is on the potential for conflict of interest. This was fairly clear in my own thinking in taking on the invitation. Of course, it was made totally clear in the announcement of the position on day one and on the reappointment some three years later that this was a part-time position and that I, as the recipient of both the original appointment and the subsequent one, was the holder of two roles: one as Chief Scientist and one as chief technologist of Rio Tinto. That clearly allows potential for conflict of interest; that is undeniable. The question is not whether that potential is there but how effectively and how properly has that potential for conflict been managed. It is my understanding that in all of my dealings that potential has been properly addressed and properly managed. It is always being made clear that I have two roles, whether at an artificial photosynthesis network meeting or at numerous other presentations or activities.

My third and final point is to emphasise that, as a part-time Chief Scientist, I have worked both systematically and energetically to champion the cause of science and innovation across all fields, not just the fields that are relevant to my other position. My focus has been at no stage to



favour any particular sector. Indeed, voluminous as it is, if you have a chance to look through the detailed submission of the public presentations, it is fairly clear that they cover a very wide gamut indeed.

On the other side and in closing on this point, at no stage has my advice to government—and I am employed under contract as an adviser to government—been as a consequence of direct or indirect instruction or influence of Rio Tinto—at no stage. My part-time employment and remuneration by Rio Tinto is in no way affected by any advice that I give to the government.

**CHAIR**—Thank you very much. I will begin by asking you about your appearance here today. This is not the first time you have appeared before a parliamentary committee. In fact, is it not the case that you have appeared before parliamentary committees on numerous occasions?

**Dr Batterham**—I think the details are buried somewhere in my submission.

**CHAIR**—Your submission refers to your appearance before the ‘universities in crisis’ committee, of which I was a member, and a number of House of Representatives committees in 2002 and 2003. Is it the case that you have had no objection to appearing before parliamentary committees?

**Dr Batterham**—It is my track record that, where appropriate, I have appeared before committees, yes.

**CHAIR**—You are considered as being able to offer parliament considerable advice, given your appearances on other occasions. That was the case with Senate estimates; is that right?

**Dr Batterham**—You and I have discussed at a meeting previously my personal point of view of requests to appear at estimates. On the personal side, I do not have a particularly strong opinion one way or the other; in other words, I do not object to it, nor do I particularly see it—

**CHAIR**—Would it be fair to say that you have no fear of appearing before a parliamentary committee?

**Dr Batterham**—No, I do not. But I thought estimates was a process—this perhaps shows my ignorance—about economics and management and so on.

**CHAIR**—Of government decisions.

**Dr Batterham**—I do not have any line responsibility for such matters.

**CHAIR**—Questions have been raised about your contract. On a previous occasion an order of the Senate was made that your contract be provided. On 9 October 2003 a return to order was passed by the Senate, and the government at that time chose not to provide your contract. I appreciate the fact that your contract has now been provided. Did you have any objection to your contract being provided?

**Dr Batterham**—I do not recall being consulted on the matter of my contract; clearly it was not a major issue. I think that is a question for the department.

**CHAIR**—That is right. It is a matter for the government. To have that information kept from the parliament was not a decision that you took?

**Dr Batterham**—Not that I recall.

**CHAIR**—I would expect no different answer, I might suggest. It is a question that the government has pursued. Sometimes it troubles me that the government seeks to pursue matters in this way. Frankly, in my judgment, all these issues could have been dealt with through the normal estimates processes. The issue of your employment has been raised. What does Rio Tinto pay you for the other part of your work?

**Dr Batterham**—I regard that as a private matter. I am not aware that senior appointments in the ARC or CSIRO are required—and they are much closer than I am to being public servants—to divulge their salary details. In fact, in terms of my privacy, I really do not feel obliged to disclose my salary.

**CHAIR**—I am not surprised by that answer either. All our salaries are on public record.

**Senator JOHNSTON**—But we are not trading entities.

**CHAIR**—That is one of the issues. That goes very much to the question of whether or not we are tradeable entities. The point I make is that I do not ask you for things that are not revealed about me. A record of every cent of public money that I spend is available, so it is not a question of my not applying the same standards to me—or any other member of parliament here. For that matter, the proportion of moneys paid to you for the work you do as Chief Scientist is also on the public record. The only issue that arises is whether or not the other component of your salary—which, it has been put to me, is very substantial—has any bearing on these proceedings. It is for that reason I ask the question. You say that you have unique roles and responsibilities in terms of your background. I want to reiterate a point I made earlier this morning: there is no issue on this committee, as far as I am concerned, about your pre-eminence as a scientist in this country and your qualifications and achievements in the scientific community are beyond reproach. That is not in issue, and I notice that a number of the submissions feel it necessary to point this out. We appreciate that people have done that, but it has not been necessary. As far as I am concerned, that question is not before the committee. The issue though is that you say your particular experience has provided you with advantages. Would you have considered a full-time position?

**Dr Batterham**—I will correct slightly a comment you have just made. If I said that I am unique, every individual is unique—

**CHAIR**—I do not mean it in that sense.

**Dr Batterham**—but there are not too many with the dual background of academic research and industry activity. Can I have the question again, please?

**CHAIR**—Would you have considered a full-time position?

**Dr Batterham**—Not really. My reason for that is associated with looking at the value proposition of having a current network and current experience in one particular domain and

bringing the knowledge that gives of how people operate and so on, plus the ability to be able to talk to a wide range of people, to the other role. Quite clearly, you can design the Chief Scientist's position to be as you will. But if you want it to have this currency from another area—which in this particular case is industry—the difficulty is the length of term. If you look at, say, a one-year sabbatical type appointment, which might be full term, you can say that at the end of it the person can go back and get on with their other life and they will not have lost too much; that would be very fair comment.

But looking at it from the Chief Scientist's side—I am sure this applies in many positions—it actually takes a while for your opinions to earn authority and credibility and for you to learn of your involvement with and the ropes of the numerous committees and so on. One year really does not work either way. One year full time: yes, you would still have currency because you are only at most a year out of date. But one year is not enough to learn all the ropes and to be effective. I think there is quite some advantage in the present sort of arrangement. I draw your attention to the UK chief science advisers, who you might note are not full time.

**CHAIR**—But many work for a university; there are many differences in that context also. Graeme Samuel at the ACCC, I presume you would acknowledge, has an extremely good understanding of the marketplace. He is no longer employed by the private sector; he works full time for the ACCC. Wouldn't you agree that, because he does not work for another entity outside of the ACCC, there is no question about a potential conflict of interest arising?

**Dr Batterham**—I do not know the full details of his job, but I would make the comment that my very limited understanding of that job is that it is an executive position. It is running an organisation, as such. It is not simply an advisory role like mine is.

**CHAIR**—Has the role you play in advising government on commercialisation been informed by your role as Rio Tinto's chief technologist?

**Dr Batterham**—My advice on commercialisation, as with many other areas, is informed by a wide range of activities, including my experience within Rio Tinto. But that is only one part of the base of the advice I give.

**CHAIR**—But your work with Rio Tinto is not the determining factor of your experience in commercialisation?

**Dr Batterham**—No.

**CHAIR**—Regarding your role in arguing the case for the ideal balance between basic and applied research funding, how has that advice been informed by your role at Rio Tinto?

**Dr Batterham**—My advice there is much more from the extensive study that I undertook for *The chance to change*, the report I came up with which informed the Backing Australia's Ability package. In preparation for that report, I had a high-level reference group, two-thirds of whom I noted were on Barry Jones' Knowledge Nation group—and I am not sure whether that is a plus or a minus. It was a high-level group made up of individuals who were quite diverse in their backgrounds and very much experienced in the field: academics, people from SMEs and so forth. I also undertook extensive consultations, both here and in other countries, as to the

appropriate balance. My advice to government through *The chance to change* was very much informed by those activities.

**CHAIR**—Your report *The chance to change* and Backing Australia's Ability No. 1 were not informed by your role at Rio Tinto?

**Dr Batterham**—No, I did not say that or, if I did, I have misrepresented the position. Of course, my Rio Tinto background provided an input to my thinking on the subject. But I tried to emphasise that that was but one—and, in this case, a fairly minor one—of the inputs that I took into consideration.

**CHAIR**—Again we could ask the same sort of question about your work on the CRC committees. Is that work influenced in any way by your experience through Rio Tinto?

**Dr Batterham**—Again the Rio Tinto experience helps to inform my position not on the specifics of any particular CRC but on the process of engagement with CRCs. I have a long personal track record of engagement with CRCs from various angles. But equally I have discussions with universities, make numerous visits and have consultations with people, including those from the IR&D Board and the Commonwealth, States and Territory Advisory Council on Innovation, which is a major source of looking at how the states and the territories in particular tackle this topic. I draw on all of these sources in coming to any particular decision.

**CHAIR**—You have emphasised your background. Does your current role have any influence at all in terms of your assessments of commercialisation, which CRCs should or should not be formed, and the balance between applied and pure research? Are any of those issues affected by your current role with Rio Tinto?

**Dr Batterham**—I can only come back to the principle. We can get into any particular decision. My current role is one input into my thinking on all and every matter, and I have always seen that as in fact the advantage of the dual roles.

**CHAIR**—Although you are not a public servant—you are a consultant—you are bound by the Australian Public Service code of conduct and conflict of interest guidelines. That is the case, is it not?

**Dr Batterham**—I think you have a copy of the contract and it is quite specific.

**CHAIR**—Yes. You are also bound by the conflict of interest code for the CRC, the ARC and the NHMRC insofar as you involve yourself with those matters. PMSEIC does not have any conflict of interest guidelines, does it?

**Dr Batterham**—I do not think there is a formal set of guidelines. I am not sure.

**CHAIR**—My question goes to the fact that these different conflict of interest guidelines are different in effect. The guidelines in regard to the Australian Public Service, for instance, are quite broad, while the CRC guidelines are quite narrow. Do you think there is a case for ensuring consistency across all of these different agencies dealing with research funding?

**Dr Batterham**—I think there is certainly a case to look at how conflict of interest is handled in the different arenas and to learn from the experience of one that might say, ‘Hey, we’ve got a good method of dealing with some particular aspect,’ and have that learning flow through to others. So to that extent quite clearly there is advantage in different agencies looking pretty carefully at how they handle conflict of interest. But at the end of the day the ARC operates under its own act and the CRC system operates under guidelines which have been signed off by the appropriate minister, and I am not quite sure why one would then need to bring that together to be a single process.

**CHAIR**—Why shouldn’t the Australian Public Service guidelines apply to all Public Service agencies?

**Dr Batterham**—They are generic. I do not think they go to anywhere near the point of detail that is appropriate to the specific processes that, for example, are involved in a CRC selection process.

**CHAIR**—I put it to you that the Australian Public Service guidelines are much tougher than the CRC guidelines. They recognise a range of conflict of interest situations in a broader context than the CRC.

**Dr Batterham**—I cannot do any more than reflect back that I operate in each arena that I operate very much in cognisance of the appropriate guidelines. If you argue that there is a generic set of guidelines which overrides the ARC Act and the ministerial directions to the CRC, it is not actually in my bailiwick to do anything about it.

**CHAIR**—Finally, does Rio Tinto have a code of conduct on ethics and conflict of interest?

**Dr Batterham**—It does. It is a document which is part of the contract of employment, called *The way we work*. I am sure that could be made available if it is of interest.

**CHAIR**—Thank you. You do not see that there is any conflict between those two codes?

**Dr Batterham**—No.

**Senator BROWN**—Firstly, because I am interested in this and I asked earlier witnesses about it, what do you think the threat of global warming is to this nation and the planet?

**Dr Batterham**—I would prefer to look at climate change as the issue, not global warming per se, because with climate change some parts will get warmer, some will get colder, some will get wetter, some will get drier and so on. So, just for clarification, I take it that you are actually asking about climate change.

**Senator BROWN**—Climate change is fine. What is the potential for climate change to this nation and the globe?

**Dr Batterham**—Climate change is something that must be taken seriously. In my public discussions, which are on the record, including the recent speech to the renewable energy people, I have argued strongly that we have to take climate change seriously. I have even gone as far as

suggesting that the sort of position put by, for example, my counterpart in the UK of deep emission cuts throughout this century is essential. So I have come out quite strongly and consistently for quite some time on the need for addressing climate change very seriously.

**Senator BROWN**—So would you agree with a cut of 20 per cent by 2020 and 50 per cent by 2050?

**Dr Batterham**—I would agree with the 50 per cent by 2050, but I am not sure that that translates through into 20 per cent by 2020. The reason for that is that the routes through to deep emission cuts ultimately and almost undoubtedly will involve distributed energy, hydrogen economy, point sources as well as distributed sources and whether they are solar towers, deep hot rocks or the like. We are not really yet in a position to say what they will be, other than that it will look very different by both 2050 and especially 2100 to what we have today.

I therefore come to the position on the more immediate term that says we need to keep the doors open on a variety of routes, some of which may have routes which are, if you like, economic expedients that minimise the disruption in terms of moving to other more stable long-term routes. The one example I would give you would be hydrogen cars. If we wait—and there will be some dispute on this—for fuel cells to be cheap enough and rugged enough that the family car can run around on them, we might be waiting quite a long time. But if, for example, we were able to make hydrogen cheaply, we could in fact run our current fleet of cars on hydrogen.

**Senator BROWN**—The question, though, relates to the energy required to make hydrogen cheaply, and hydrogen is a conveyer of energy rather than a source, isn't it?

**Dr Batterham**—Correct.

**Senator BROWN**—Do you agree with your UK counterpart that climate change is a greater threat to humanity than terrorism?

**Dr Batterham**—I noticed his comment there and I had the chance to discuss it with him recently. I do not think I am expert enough in the areas of terrorism and its impact on a nation to say this is an either/or or one is higher than the other. I stick to my principles and say in terms of one aspect—because energy is only one aspect of science and innovation—we do have to consider long term some very serious changes.

**Senator BROWN**—But will they be of the order of terrorism? He is expert enough to make a comment like that.

**Dr Batterham**—He is expert because he sits astride the whole defence and security side of the UK science and innovation. Whilst I have security clearance to the highest level and see something of the activity, I would not consider myself an expert to make that balance.

**Senator BROWN**—Regarding his expertise, would you doubt him?

**Dr Batterham**—I do not doubt his expertise and I note his comment.

**Senator BROWN**—Have you advised the government that it should ratify the Kyoto protocol?

**Dr Batterham**—There are two things here. Firstly—and Chair you might or might not need to rule on or consider this—the Prime Minister indicated in his response to question No. 1334 in the Senate that I do advise the government on a number of matters including energy matters. But his response to the Senate was that the advice that I give he does not propose to provide.

**Senator BROWN**—That being the case, I will leave that. But I will ask you directly: do you believe that Australia should ratify the Kyoto protocol?

**Dr Batterham**—I have made public comment on it, which I am happy to give, but I just wanted to be—

**CHAIR**—First of all, you are not obliged at this hearing to provide information on the nature of your advice directly to government particularly where the minister has indicated that he wants to keep that confidential. You are entitled to put your view to this committee on any matter so there is plenty of room there for you to say whatever you need to say.

**Dr Batterham**—Thank you. Senator Brown, I have spoken in public, and not just to the press but in considered review papers. I have spoken on the path through to the long-term sustainable energy future. My opinion is that there is no great advantage in signing Kyoto and my reasoning behind it—and I will not elaborate too much on it—is that unfortunately it is a pretty small step, albeit of course you can argue a step in the right direction, towards what we have ultimately got to do. We have to talk not about a few per cent reduction but about an 80 per cent reduction by the end of this century or a 50 per cent or 60 per cent reduction—and I do not have a strong opinion on which one—by 2050.

**Senator BROWN**—But surely you would not be opposed to Australia ratifying the Kyoto protocol?

**Dr Batterham**—I do have some inherent opposition to signing the thing, and I am in a difficult position on it. My difficulty is one of principle that says that, if you put a target in front of people that you want to encourage them by and we use the elastic band analogy and if you put a target which is so far out that the stretch in the rubber band means that it breaks or that the view is one that is so far out that nobody signs onto it, you have failed. Conversely, if you put a target in front of people, when the real game is over there, which is only a small step away, then it tends to be too blase. It tends to have such little impact that, again, you fail to move people in the direction that we have really got to go. So I do have a quandary on Kyoto.

**Senator BROWN**—Are you thinking that your counterparts in the UK and in the 100-plus countries that have signed up on Kyoto are being a little blase?

**Dr Batterham**—I think that they are coming from the viewpoint that any step in the direction of Kyoto is a good one. My pragmatism says no, it is actually a bit more serious than that. We have got to go a mile—or whatever unit of measurement you like—past Kyoto.

**Senator BROWN**—And you don't take into account there the shortness of the political view in our democratic systems in particular, which is very short-sighted, and you don't think short-term goals are an advantage in making this fast journey towards turning around climate change?

**Dr Batterham**—I accept that there is a balance, as I have indicated, between short-term and long-term goals. I would much rather see my mark in this debate as getting people to think about 50 per cent reduction, not eight per cent increase.

**Senator BROWN**—Have you got a course to that 50 per cent reduction? Have you laid down the steps that need to be taken to get there?

**Dr Batterham**—I think the IPCC and others are laying out this course and it is one in which there is increasing engagement and—I might add of course—debate. I do have a course on how to get there. I have outlined this course in public arenas and quite consistently, I might add, for quite some time. I am happy to expand on that if we have time.

**Senator BROWN**—You might just present it to us in writing, if you would. I note that the IPCC, by the way, is in favour of ratifying the Kyoto protocol. But let us move on to geosequestration and the role you see this having in achieving that desired outcome of averting climate change.

**Dr Batterham**—Perhaps the easiest way I can tackle that is—

**Senator BROWN**—Maybe I could just ask you directly: do you see it as having a major or a vital role in achieving that outcome?

**Dr Batterham**—There are four directions that need to be followed to get through to deep reductions in emissions. Carbon capture and storage is one of them. That is not just sequestration into the ground; carbon capture and storage also includes forests. Renewables is route two. Route three—and you can have these in any order that you like—is energy efficiency and utilisation of energy. Route four is moving to lower carbon intensity fuels, which one notes might include nuclear if people can be satisfied on the safeguards for such operations, including the long-term handling of wastes.

**Senator BROWN**—Carbon capture, as you put it, is one of the central matters to be taken into account in achieving this desired outcome. What is the interest then for Rio Tinto in carbon capture and, in particular, in geosequestration? Putting it directly again: this is of central interest to Rio Tinto.

**Dr Batterham**—Firstly, I am not a spokesperson for Rio Tinto; that is not my job with them. I am an adviser to Rio Tinto as well on threats and opportunities. I am sure that you can get from the energy group in Rio Tinto a comment on how they see geosequestration. I am simply saying—and I can say it quite consistently and have done so for some years now—that carbon capture and storage is one of the four principal routes that we have got to follow.

**Senator BROWN**—But for Rio Tinto, which is the most important of those four?



**Dr Batterham**—You would have to ask Rio Tinto that, Senator. I am not in the position to answer for the energy group of Rio Tinto.

**Senator BROWN**—Do you really mean to tell me that you do not know what Rio Tinto's thinking or the energy group's thinking is on this matter?

**Dr Batterham**—I note that the energy group is in fact backing initiatives to look at renewables and at energy efficiency and at less coal use in power stations and at carbon capture and storage. I note its backing of all of those routes.

**Senator BROWN**—Can you tell me what public funding has gone to Rio Tinto for each of those four routes since you have been Chief Scientist?

**Dr Batterham**—I am not in a position to comment on that one, or on the details of Rio Tinto's involvement in specific enterprises or exercises not in my purview in Rio Tinto.

**Senator BROWN**—So as Chief Scientist you have had no interest in that matter?

**Dr Batterham**—As Chief Scientist I do not have any interest in the specific amounts that go to particular companies, no. But in the broad brush of areas such as where Senator Carr questioned—for example, the balance between basic and applied work and so forth—yes, but not down to the level of a specific company.

**Senator BROWN**—Since you have been Chief Scientist which specific decision-making episodes have you absented yourself from because of a potential conflict of interest?

**Dr Batterham**—Numerous. When I say 'numerous', it is obviously more than the number of fingers on one hand. We will assume that numeracy goes beyond that. The form of the absenting will be as per the guidelines, particularly—Senator Carr, as an aside, remember that half of Australians cannot give you the answer as to whether the earth goes around the sun or the sun around the earth. I would just note that.

**Senator BROWN**—We will note that.

**Dr Batterham**—It is a bit of a challenge. Senator Brown, the conflict of interest guidelines—for example, in the CRC process—are such that, even with the firewall that prevents me from seeing the details of any Rio Tinto application from the Rio Tinto side, I am deemed to have a category 2 conflict of interest. As such, whilst I can be in the room and contribute to technical discussion on a topic, with a category 2 I cannot be part of the decision-making process.

**Senator BROWN**—And you do not see your presence in the room and your status as Chief Scientist as bearing on that decision-making process.

**Dr Batterham**—I think you have commented once about the effect of my presence on people. All I can say is that I personally do not see that my presence in a room materially affects the behaviour of the other people in the room. They are very distinguished people and capable in their own right.

**Senator BROWN**—You have an allocation of \$125,000 for secretarial backup in your post as Chief Scientist, which comes out at more than \$1,000 a day for the allocation of time.

**Dr Batterham**—And for travel, I think.

**Senator BROWN**—Yes. You have an office at Rio Tinto which is designated as your post of Chief Scientist. Could you explain that to the committee?

**Dr Batterham**—Firstly, as to the amount that you referred to for secretarial support and travel, I think that the department is in the best position to comment on what that is for, how it is expended and whom it is expended on. That is not my line responsibility. I am aware of it but I am not responsible for it. In terms of your specific question on having an office in Melbourne, I do have an office in Melbourne and there I undertake duties associated with both of my roles, so you can say that that office is occupied at times by me in my role as Chief Scientist and at times by me in my role as Chief Technologist of Rio Tinto.

**Senator BROWN**—How is somebody going to your office to know which times are which?

**Dr Batterham**—Nobody can get into that office off the street. They must go through a security process. They must be taken up to the office. They are not going to be strangers when they come in; they are going to go through a properly screened process.

**Senator BROWN**—What do you do in the office? If somebody who has an appointment is coming to see you as Chief Scientist rather than Rio Tinto's Chief Technologist, do you change the sign on your desk? Do you black out one of the signs in the hallway? What do you do there?

**Dr Batterham**—It will be crystal clear to them—and I will make it crystal clear to them—whom they are speaking to. I do not think they need the artifice of turning off the lights on one side and turning on the lights on another. Let me say quite categorically that I do not allow visits from anyone or discussions with people which potentially span the two jobs. That includes correspondence, telephone calls, emails as well as visits. If they look ambiguous, the front office—mainly in Canberra, I might add—will say, 'This looks ambiguous,' and will go back to the originator of the request for whatever it is and ask: 'Are you wishing to speak with the Chief Scientist or the Chief Technologist? You can't have both.'

**Senator BROWN**—So people coming to see you have to have a firewall, in the same way as you have a firewall, to divide these two things.

**Dr Batterham**—How they handle their internal affairs and multiple roles, if they have them, is their bailiwick. I just make sure that it is very clear in any dealings that I have that it is either the Chief Technologist or the Chief Scientist that is speaking. In fact, I note in the submissions that I scanned through that there are several people attesting to the fact that, in the numerous fora that they have seen me operate in, there has never been any question arise.

**Senator BROWN**—What proportion of the rental cost for your office as Chief Scientist in Melbourne is paid for by Commonwealth?

**Dr Batterham**—You would have to ask the department that. I am not aware.

**Senator BROWN**—Is there a proportion?

**Dr Batterham**—I am not aware.

**CHAIR**—We will take that up with the department.

**Senator BROWN**—I refer to the Roam consultancy, which you heard me speak about earlier today. Could you tell me why it was that you made presentations to the ministerial council and to the Prime Minister's scientific council which included this graphic showing that the zero-emissions coal could be achieved at \$10 per tonne of carbon dioxide without attributing that to the source of that information?

**Dr Batterham**—I would regard anything given to the ministerial council as being given to ministers and not in the public domain. I am not going to avoid your question—I will go on—but I point out that what is given to ministers or ministerial councils for that matter is in confidence.

**Senator BROWN**—Why did you not attribute the source of that information upon which this presentation was made?

**CHAIR**—Dr Batterham, I understand that your submission presented to this inquiry included within it a number of slides, overhead presentations and PowerPoint presentations, one of which was the cost of mitigations and dollars per tonne of carbon dioxide. It appears to me that the figure of \$10 per tonne is referred to in that submission, so it is not advice to ministers.

**Dr Batterham**—Can you tell me which submission it is from?

**CHAIR**—The presentation is headed 'Constructing an Australia that can deal with uncertainty'. We can provide you with a copy of the submission.

**Dr Batterham**—I would not mind seeing it before I comment.

**CHAIR**—I want to indicate to you that this is not confidential information we are seeking; it is information we understand you have provided to us in your submission.

**Dr Batterham**—That is fine. I just wish to see the thing in context.

**CHAIR**—That is a 2002 presentation. Senator Brown has advised me that similar information has also been provided to a question on notice. We are not asking you about confidential information provided to a minister.

**Dr Batterham**—Sure. I am just ascertaining where it is. There are an awful lot of them and most of them are not on energy. I would have stood there and said, 'The range is \$10 to \$50,' and explained why. That is simply a PowerPoint prompt in a presentation.

**Senator BROWN**—Just on that point, the text says a range of \$10 to \$50, but the graphic—and this graphic was referred to as something being sought by Mr Cain for such presentations—says \$10. There is no range on here.

**Dr Batterham**—Yes. I note you have a graphic there which does not have a range on it. All I point out is that I do not use speech notes; the graphics are merely prompts for whatever it is I am going to deliver at the time. I am well aware of, and I refer you to, as you point out, the text of the PMSEIC paper, which was a working group—

**Senator BROWN**—So why didn't you put \$50 a tonne on there? It would have made a vastly different sight for those people looking at it.

**Dr Batterham**—Are you implying that I did not say \$10 to \$50 on the day?

**Senator BROWN**—No, I am saying straight out. You have said \$10, not \$50, on the graphic.

**Dr Batterham**—I am just pointing out to you, Senator Brown, that you needed to be there on the day to see what I said. The graphic is merely a prompt in a speech.

**Senator BROWN**—No, the graphic goes up before the audience. That is what they are looking at. The graphic shows that, because it is \$10 a tonne, you get a better result than from gas combined cycle and one that is far better—six times better—than renewables. If you had put \$50 in here—the conservative end of the range you talk about—a vastly different appearance of the advantage of the emissions options would come about.

**Dr Batterham**—Senator Brown, are you implying that I did not state the range?

**Senator BROWN**—Yes, I am saying straight out—

**Dr Batterham**—Well, I am saying that you are wrong. Ask someone who was there.

**Senator BROWN**—I am saying that on your graphic presented to impress ministers of the crown from around this country, you put \$10 a tonne.

**Dr Batterham**—No. This is not the ministerial presentation. For the ministerial presentation, for your information, they could not even get the PowerPoint to work. It was all done verbally.

**Senator BROWN**—And the PowerPoint did not have this graphic on it?

**Dr Batterham**—I am not saying what was in ministerial presentations. We have agreed that.

**Senator BROWN**—Did the PowerPoint presentation work at the prime ministerial council?

**Dr Batterham**—It says quite clearly \$10 to \$50. I have the graphics here and at no stage do the graphics include cost of mitigation. They include electricity costs for new entrants. The figures that they present there are in fact more favourable than the Parer report, because my understanding of that working group—and it was the working group not Batterham presenting, nor was it Batterham's efforts in that working group; it was a working group which included CSIRO and a string of other experts on the matter—is that they were projecting the costs into the future. So, not unsurprisingly, they were lower costs than even the Parer figures.

**Senator BROWN**—Chief Scientist, that is your graphic. That is a graphic you used, wasn't it?

**Dr Batterham**—That was a prompt in a speech, yes.

**Senator BROWN**—On the matter of delivery of this information to both those groups—the ministerial council and the prime ministerial council—did you reference Rio Tinto as the source of that information?

**Dr Batterham**—Senator Brown, the presentation to the Prime Minister's Science, Engineering and Innovation Council was not by me. I was not responsible for its presentation, nor was I particularly involved in its presentation. As you know from the submissions here and as you well know from your studies of it, that was a working group which drew that information together. It drew on, as do all PMSEIC working groups, the expertise of its members and even wider a field. It had consultations with the Australian Greenhouse Office, Geoscience Australia and so on. That is the nature of a working group. In terms of any presentations that I have made, I often avail myself of information provided by the working groups. I work on the principle that these people pulled together are some of the best in the land so their advice is sound.

**Senator BROWN**—Were either of those groups in the presentation told that it involved information funded by Rio Tinto?

**Dr Batterham**—As I recall—and you can check with the department which may or may not have the records—the PMSEIC presentation started with an introduction of who the working group members were and what their affiliations were.

**Senator BROWN**—I am not talking about that. I am talking about the source of information that was presented and the payment by Rio Tinto to Roam Consulting for information which was basic to that presentation. Was that acknowledged?

**Dr Batterham**—The Rio Tinto membership of the working group was acknowledged, as I recall.

**Senator BROWN**—I am not talking about the Rio Tinto membership of the working group. I am talking about the information provided to these peak decision making bodies about the allocation of government funding for future research.

**Dr Batterham**—PMSEIC is not a decision making body.

**Senator BROWN**—No, it is an advisory body.

**Dr Batterham**—Correct.

**Senator BROWN**—Was the information that went to PMSEIC and the ministerial council qualified by notification that Rio Tinto had funded pivotal information?

**Dr Batterham**—We have already agreed I think that we are not talking about the information provided to the ministerial council. We are talking about PMSEIC matters as being publicly

available and appropriate for this forum. All I can repeat is that the presence of Rio Tinto on the working group was noted to PMSEIC.

**Senator BROWN**—No, you are confusing things and I am not going to let that go unclarified. Rio Tinto paid Roam Consulting—

**Dr Batterham**—If you say so; not my bailiwick.

**Senator BROWN**—Well, David Cain says so.

**Dr Batterham**—Not my bailiwick.

**Senator BROWN**—Do you accept the information he has put on the record?

**Dr Batterham**—I assume David Cain in stating that is stating the facts of the matter. I have no reason to believe otherwise.

**Senator BROWN**—And he was then employed by Rio Tinto Technical Services?

**Dr Batterham**—Correct.

**Senator BROWN**—And he said to the working group advising PMSEIC:

I intend to commission (at Rio Tinto's cost) a high level model of the future emissions ... The model should be ready at the end of October to allow scenario testing to produce graphs for our report.

**Dr Batterham**—As with any working group, I presume the members of it can bring, subject to the rest of the working group agreeing, work in progress that they are doing in the course of their normal duties. That is one of the powers of PMSEIC working groups.

**Senator BROWN**—There is a direct and monumental conflict of interest when Mr Cain, and you using his information, inform major advisory bodies to the government and the Prime Minister, and therefore feed into the decision making process, of the advantages of geosequestration as the low-cost option and you do not inform those bodies that the information which has made it so low cost came from a consultancy paid for by Rio Tinto.

**Dr Batterham**—Senator Brown, you astound me if you are implying that CSIRO—who were on that working group and who have their own independent sources and costs for all sorts of alternative energy scenarios and an energy flagship to boot—would sit silently by if any data that was tabled was too far out of line with their own, or that in the consultations with the Australian Greenhouse Office, for which ditto, they would sit silently by just because an alternative was tabled which was significantly different from their understanding of the matter. Are you implying that AGO, CSIRO and the others involved in that working group ticked off, signed off, supported and endorsed a cost position significantly different to their understanding of the matter? That beggars belief.

**Senator BROWN**—What I am asking is why in your central role here you did not insist that all of those bodies, everybody involved, knew that Roam Consulting had been paid for by Rio Tinto. Why did you not do that?

**Dr Batterham**—I presume that the workings of the working group—I suspect from what you have just told me that David Cain made it clear to the working group that he would be providing Rio Tinto data—were no different from the line of CSIRO, AGO and others who would also have been tabling data on the same issues. What is the difference?

**Senator BROWN**—The difference is that you did not and he did not inform the Beyond Kyoto working group, and certainly not PMSEIC, that Rio Tinto had paid for the fundamental information that advantaged geosequestration. Can you tell me who else—

**Dr Batterham**—Senator Brown, you are telling me that he did not inform them. I can only comment that if you wish to pursue that line you will have to ask the chair of the working group and the other members as to what was said and when. I was not present at all of the working group meetings. At the most, I attend something like the start and the finish of working group activities to ensure that there is some consistency of approach across PMSEIC working groups.

**Senator BROWN**—So you are not concerned that a major vested interest paid for the consultancy which provided information favourable to that vested interest to these pivotal government advisory and decision-making processes?

**Dr Batterham**—Advisory processes, not decision-making processes.

**Senator BROWN**—Advice goes on to make decisions.

**Dr Batterham**—The PMSEIC does not make any decisions.

**Senator BROWN**—It feeds its advice into the decision-making process.

**Dr Batterham**—And it is one route of many that feed into government. I would be concerned if, for example, the AGO dreamed up its figures out of the air and did not actually pay consultancies to help it to test the costs of various routes, or CSIRO or, for that matter, Rio Tinto.

**Senator BROWN**—We know that Roam Consulting came up with the figure of \$10 per tonne; who else did?

**Dr Batterham**—I do not know that Roam Consulting came up with the figure of \$10 per tonne.

**Senator BROWN**—I am putting it to you that they did, but leave that aside. Who did come up with the figure of \$10 per tonne?

**Dr Batterham**—The working group looked at existing figures, and I might present some existing figures from the IEA, or 40 or 50 figures from the IPCC and a string of references that are somewhat in line with those numbers.

**Senator BROWN**—Of \$10 a tonne?

**Dr Batterham**—From \$10 to \$50—just let me answer your question if I may. The working group came up with a set of figures which, I have already pointed out, are very much a case of looking at current costs, looking at where the future technology is heading and making an estimate of what those costs are, which is why, for example, their costs for renewables are significantly less than the costs you will see in the Parer report for the existing cost of renewables. So they were making projections into the longer term future. That is my understanding of where that range came from.

**Senator BROWN**—As chief technologist of Rio Tinto you did not know that Roam Consulting had been taken on to provide these figures?

**Dr Batterham**—The simple answer is no.

**Senator BROWN**—And you were not aware that David Cain, who was an employee of Rio Tinto, had made this proposition to the Beyond Kyoto working group and that Roam Consulting's figures had been in the mix of advice that went to PMSEIC?

**Dr Batterham**—I saw at the end of the process that there was a range of inputs used by the working group.

**Senator BROWN**—Do you think that Mr Cain should have ensured that Rio Tinto was acknowledged as having funded the information provided when it went to PMSEIC?

**Dr Batterham**—You are suggesting that he did not make that clear, and I am suggesting that the only way that that can be ascertained is by querying the members of the working group. One should also query CSIRO and the AGO as to their sources and who paid whom for the results.

**Senator BROWN**—Having been brought to you on notice, do you not think it is your business to find out?

**Dr Batterham**—Not at this stage. We obviously have a process here of deep introspection, which I presume will ferret out whatever it needs.

**Senator BROWN**—Could you again say how it is that this firewall that you have said is in your work or in your head enables you to remarkably separate your interest with Rio Tinto as chief technologist from your interest as Chief Scientist to the nation in making deliberations and giving advice to the Prime Minister and to the government?

**Dr Batterham**—I do not make any attempt to pretend that I have a single role. I tackle all of my duties upfront, noting the two roles that I am currently performing. My third role of being an organist does not need to concern us here, although they do emphasise that you can do at least three things simultaneously. What I do with them is ensure that whoever I am dealing with is aware of my dual roles, the nature of them and that, if there is the potential for conflict of interest, there is a process in place to handle it. I have indicated some of that process, for example, the screening of all incoming material such that it can be cleanly sorted.



**Senator BROWN**—From the observer's point of view, the outcome of this period has been a government moving millions of dollars of public funding to geosequestration, which is what Rio Tinto wants, and taking money away from renewables or certainly not funding them to the degree which advanced science and technological capability in Australia has so that Rio Tinto has been marvellously advantaged with money from the public purse—and I am talking about tens of millions of dollars—while we have scientists working in solar power in particular who cannot get money for research and development and are moving offshore. Doesn't that worry you and doesn't your position become a source of worry, if not untenable, where decisions like that are being made with you working as Chief Scientist two days a week and working as chief technologist for Rio Tinto on a much bigger salary the other three days a week?

**Dr Batterham**—I think you need to unravel that somewhat. The decisions on funding of any particular CRC are not taken as to whether that CRC is in renewables, sequestration, Northumbrian basket-weaving or whatever. But I do not wish to make light of the point.

**Senator BROWN**—I do not think you should.

**Dr Batterham**—The decisions are taken on how well individual CRCs meet the guidelines. There are winners and losers in that process and it is in some ways regrettable that there is not enough money to go around for everyone that puts their hand up and says, 'I have a good idea and I'd like to follow it.' We do not follow that principle in any other walk of life. We do not give unlimited medical treatment to anyone who says, 'I think I might need a CAT scan today.'

**CHAIR**—But is it not the case that, when you change the guidelines and remove public benefit research, such things as the photonic CRC, the satellite CRC, the Great Barrier Reef CRC and all those other CRCs are going to be disadvantaged when it comes to those CRCs dealing with a commercially much more exploitable product like coal?

**Dr Batterham**—The CRC system, at some few hundred million dollars, is one part of a greater than \$5 billion outlay per annum. I think we should not look at just what is happening inside one small part of the system and ignore what is going on in the rest of it. I am very gratified to see the success of the CRC system as a working model for collaboration, because I argue—and it is in numerous of the publications there—that collaboration amongst world-class people is in fact extremely important, because opportunities tend to come from crosscutting disciplines more than from within particular disciplines. I therefore look at the totality of the funding envelope and note, for example, that in recent years the ARC and the NHMRC have picked up on what the NHMRC calls 'program funds' and what are in the ARC's case special centres of one sort or another, be they at the mega end of the scale, like NICTA, or at the more moderate end of the scale, like the Plant Functional Genomics Centre. The CRC model has obviously informed this process, because you see in plant functional genomics, for example, very significant collaboration going on. I think the success of the CRC system is now influencing the wider funding arena, and I do see that the wider funding arena is where most of the activity should be—not just concentrating everything in the CRCs.

**CHAIR**—I do not think you answered my question, but Senator Brown has one more and Senator Stott Despoja has some questions, so we are going to run over time a little. I am sorry that we may well cut into the time of the academy but I think, given that you, Dr Batterham, are the centre of the attention in this matter, it is probably better to hear directly from you.

**Senator BROWN**—Your slide presentation says that to rapidly reduce emissions, No. 1, ‘Change the language: emission reduction is equivalent to renewables.’ Emission reduction—this is geosequestration, and it is doubtful that it will ever be 100 per cent—is patently not equivalent to solar power, so I am very interested in this language. Isn’t this just a presentation to say: ‘We’ve got to get the spin right. We’ve got to make geosequestration look good. We’ve got to get over the public support and political support for solar power as against trying to clean up coal sometime in the future’?

**Dr Batterham**—I think undoubtedly we have to keep coming back to these four broad routes that are needed for the short- to mid-term and, in the long run, we are going to be almost entirely on renewables. I think part of shifting the debate is to emphasise these four routes, including carbon capture and storage. Interestingly, the IPCC note that the language is changing and that they themselves did not accredit much importance to this route in the past because it was regarded as unproven technology. They now are coming out with language which is just the opposite and saying: ‘Whoops! Every element of it is actually proven technology for, in some cases, the last 100 years.’

**Senator BROWN**—But they are not saying that; you are saying that. That is not true, though—is it?

**Dr Batterham**—We have to change the language so that people realise that climate change is about emission reduction. Climate change is not just about renewables.

**Senator BROWN**—But that statement is not true, is it?

**Dr Batterham**—Give it to me again, please.

**Senator BROWN**—‘Change the language: emission reduction is equivalent to renewables.’

**Dr Batterham**—In terms of climate change, it is.

**Senator BROWN**—But, no, it is not equivalent to renewables—

**Dr Batterham**—In terms of climate change, it is. If that was the prompt again in a speech, I would stand by it. The point that I would be making is that we do not just think of the future as renewables; we have to get there by multiple paths. I have recited the four of them; I do not need to recite them again.

**Senator BROWN**—No.

**Senator STOTT DESPOJA**—Dr Batterham, I begin by asking why you think you are before the Senate inquiry today. We have examples of other Chief Scientists who have had other roles as well as being Chief Scientist. As I understand it, Professor Stocker had several company directorships during his term. So why do you think you are here today?

**Dr Batterham**—Firstly, Senator, you are probably in a far better position to say than I, but you asked me why I think it is. My response is that there is a genuine interest in the role of the

Chief Scientist and how that can be better shaped if possible—I do not mean me personally, but the role.

**Senator STOTT DESPOJA**—So you acknowledge that legitimate interest, and obviously you are comfortable appearing today discussing these issues.

**Dr Batterham**—Quite so.

**Senator STOTT DESPOJA**—In your submission you state that you have developed networks and created linkages. What is involved in creating and maintaining these links? I guess I want to know whether time and its availability are factors in creating good linkages.

**Dr Batterham**—Time is important, but that is particularly so in setting up linkages. It is like working collaboratively with people, just as you today are a disembodied voice but because most here in the room have had the privilege of meeting you or discussing things with you they can interact with that disembodied voice in a way which is perhaps more detailed or more trusting or able to be more relaxed or whatever because they have had the initial contact or exposure. So with the networks there was a lot of work initially in the Chief Scientist's job in which probably the productive side of the job—which is giving advice—was pretty low and what was very high was the consultative side and the setting up of networks over and above those that I brought with me. It has varied. If you were forever setting up new networks the job would be somewhat different to what it is at the moment.

**Senator STOTT DESPOJA**—I take your point, particularly in relation to the establishment of those networks, but I am presuming a lot of linkages require not only consultation or advice but constant development. I am wondering if you believe that a full-time Chief Scientist would be in a better position to maintain those and indeed create more links as the case may be.

**Dr Batterham**—We touched on that earlier a little. The notion of having currency so that you have a part-time appointment has a lot of sense in it, and I have elaborated on it. Particularly in terms of the network side, what I note is that in Australia we have some splendid networks which give you a very efficient entrée to a wide range of people. As an example, the pro vice-chancellors of research at the universities get together en masse. You can go and spend a day with them and cover a huge amount of territory in one day because they have their network and they do come together. Likewise, there is CCST, CSTACI and so on with the states and territories and the different Commonwealth agencies. I am not saying that we have an easy ride, but I do point out that there are some networks in this country, particularly on the university and research side, which are pretty well established. One can tap into them fairly easily, providing you have the credibility to be able to walk through the door.

**Senator STOTT DESPOJA**—Indeed. Let me be clear: I have been listening to your evidence. I may be a disembodied voice but I was aware of your earlier comments. I guess my question leads on to testimony, if you like, of previous witnesses. I am interested to know how you would describe your relationship with environmental scientists and some of those environmental groups that have appeared today. I ask that because, as you would know, there were several submissions to the inquiry from scientists and, I acknowledge, many were praising your work as Chief Scientist. But none of those submissions praising your work were from

environmental scientists, if I am correct in my assessment of the submissions. I am wondering if that suggests you do not have the strongest relationship with those groups. Is that an issue?

**Dr Batterham**—Firstly, I notice that there are connections, of course, between some of these groups and Rio Tinto. Whether they like to declare them as conflicts of interest is up to them, but that is outside of my bailiwick. More significantly, I point out that quite independently of our discussions today I do get a lot of interest in the topic of sustainability, and I indicated this in my submissions—for example, in the role as President of the Institution of Chemical Engineers, the vision papers et cetera. I would argue that I have very strong environmental credentials, interest in it and indeed show leadership in that area. I am president of the International Network for Acid Prevention, for example, which contains over 75 per cent of the world's mining industry companies joining together to try and improve their performance in that particular area. In terms of personal relations, I see some of the members of ACF, for example, from time to time. Don Henry and I spoke on a common platform, and indeed he strongly endorsed the position that I was giving to the renewable energy people just a couple of weeks ago on the need for Australia to have a long-term target for 2050, where I am in total agreement with Senator Brown.

**Senator STOTT DESPOJA**—Taking this away from the issue of credentials per se, can you tell the committee how many meetings you have had, for example, with environmental groups or with the environment minister in your capacity as the Chief Scientist?

**Dr Batterham**—I have not had so many one-to-ones with environmental groups but I have had plenty of interaction at various conferences, which has been the main source of interactions, because I do make myself publicly available through such activities. Environmental groups have not beaten a path to the door, if that is the nature of your question. In terms of meetings with the minister for the environment and the secretary of the department, I believe some of the formal meetings that I have are listed there in the submission. There are a significant number of them.

**Senator STOTT DESPOJA**—Indeed. The previous witnesses from the ACF and World Wide Fund for Nature acknowledged that they had not initiated meetings with you, nor had you initiated a meeting with them, so maybe that is an issue. I do not know.

**Dr Batterham**—I point out, because I glanced through the WWF and the ACF submissions, that the World Wide Fund for Nature are somewhat off the mark if they are implying that I focus only on coal fuelled energy with geosequestration. I have made it very clear both in public pronouncements and in my submission that I favour a lot more than that, and I have rehearsed the four key areas, of which carbon capture and storage is but one. Similarly, the ACF states somewhere in its submission—I might have misread it—that capture and storage per se is an unproven technology. All I can suggest is that capture and storage has three elements in it—and I have here the IEA costs for them—separation, transport and injection. I point out that separation technology, whilst there is a lot of research going on in it, was developed for the town gas industry—which some on this references committee will probably be too young to even remember—and has been practised ever since, so it has the best part of a century of operating and real experience behind it.

It is similar for transport; millions of tonnes of carbon dioxide are transported through the world already by pipeline. It is similar for injection into deep saline aquifers. Leaving aside Sleipner, which has been well known for its one million-odd tonnes for a few years, there is

somewhere in the order of 60 to 200. I would have to look at my papers to get the exact figure. There are current examples of injection of CO<sub>2</sub> into saline aquifers. It has been practised for over 30 years. It is common practice. This is not for enhanced oil recovery; we know that one. This is simply to put the CO<sub>2</sub> away in storage underground for geological time scales. This is hardly new technology, so I dispute that part of their submission rather strongly. But I point out, of course, that the integration of the elements of the technology is new.

**Senator STOTT DESPOJA**—I will go to the issue of the advice that you provide. I think my colleagues have covered that in detail, but I am specifically interested in the nature of formal advice. You acknowledge that the Chief Scientist may offer advice on his own initiative and that this may be informal. Could you define for the committee what ‘formal’ means in this context? Is it a brief conversation in a corridor, a chat on the way out of a CRC committee meeting? What is informal advice?

**Dr Batterham**—I would regard formal advice as a written submission, and one that may or may not be published. Three of the four reviews that I have done have in fact been published and are available: *The chance to change—final report*, *Review of marine research in tropical Australia* and *Review of external earnings targets policy applying to CSIRO, ANSTO and AIMS*. But there is one review that I undertook and submitted formally which has not been published, presumably because its relevance was not all that high. Informal advice can be, as you described it, the occasional meeting. But most of the meetings involve notice beforehand, with points being made as to what the discussions will be about, and they tend to be one-on-one with whoever the recipient of the advice is.

**Senator STOTT DESPOJA**—In terms of keeping records of advice that is informal but provided by the Chief Scientist, are you suggesting that there are general records kept or are you referring to the fact that there may be a diary note, a phone call or maybe some handwritten notes? Is a specific record deliberately kept of informal advice?

**Dr Batterham**—I do not personally keep a detailed record of the advice that I give. Sometimes those that I am giving advice to have note takers.

**Senator STOTT DESPOJA**—How are conflicts of interest dealt with when they arise in formal advice from the Chief Scientist or during informal consultations with the Chief Scientist?

**Dr Batterham**—Are you asking: if there is a conflict during formal advice, how is it notified?

**Senator STOTT DESPOJA**—I am asking: how is a conflict of interest dealt with which arises from formal advice or communication from the Chief Scientist?

**Dr Batterham**—I can only answer that from my personal perspective. I assure you that, when I visit people to give advice or to discuss issues, I make it absolutely clear that I am the Chief Scientist. All the people I deal with tend to know that I have a role in Rio Tinto. If I give advice which might be in an area that could be perceived as being of interest to both parties then I make it very clear that I am giving the advice as Chief Scientist.

I have not made any representations to government or to a minister as Rio Tinto other than I think on one occasion when I was asked for the environmental credentials of the Hismelt

process. I put that one on the record so that there could be no confusion or conflicts seen there. I used information in that letter, which was in the public domain, and made it clear that that was a rare case where I could be speaking in either of the roles or, indeed, in both of the roles simultaneously because the information was the same.

**Senator JOHNSTON**—As Chief Scientist, do you come into possession of confidential commercially sensitive information, particularly with respect to renewable technology, and, if so, what practice or protocols do you employ to ensure that you comply with the terms of your contract insofar as conflicts are concerned?

**Dr Batterham**—I do not think that I have come into contact with commercial-in-confidence information on renewables. I have certainly come into contact with an awful lot of information on renewables. I came in at the tail end of questioning on, for example—

**Senator JOHNSTON**—That is why I asked the question.

**Dr Batterham**—the artificial photosynthesis network, which I attended as Chief Scientist. I made it clear that I had a role in Rio Tinto and that Rio Tinto had interest in renewables. All of the information, as I recall, that was tabled and discussed was scientific information and not commercial-in-confidence information. This was a meeting of minds of this network, which I encouraged because it is exactly in line with the collaborative approach which I keep hammering for science that says: get out of your narrow discipline and go and talk to people in related disciplines; that way we will get more breakthroughs rather than fewer. I have been hammering that line across the spectrum, not just in renewables.

**CHAIR**—I understand that Senator Brown has a request.

**Senator BROWN**—Some might say that it is advice you ought to look at, Chief Scientist. Will you help the committee by providing, or facilitating the provision of, in either capacity you have, that Roam consultancy which was referenced in the PMSEIC report?

**Dr Batterham**—I cannot as Chief Scientist; it was not my bailiwick. In terms of either role, I can forward the request to Rio Tinto. I was under the impression that the Roam data, through a question in the Senate, was actually already tabled.

**Senator BROWN**—Not the consultancy report, which is what I am asking for.

**Dr Batterham**—It is not my bailiwick in either arena to say yes or no. I can certainly pass on the request. I would have thought that it was more relevant to get an update on the sorts of figures behind the IEA position for costs now—costs of new technologies and costs into the future—because that information is available. It does not surprise me but it might surprise some to see that it comes out very much in line with the PMSEIC figures.

**Senator BROWN**—So you will do what you can to get the Roam consultancy for us?

**Dr Batterham**—I can pass it on, yes.

**CHAIR**—I have one more question. I presume that the answer will be straightforward, given what you have said today. Is it the case that you had no role in the negotiations leading to the establishment of the jointly funded Rio Tinto Foundation for a Sustainable Minerals Industry in 2002?

**Dr Batterham**—I am just making sure that I do not read it as a double negative. Did I have a role?

**CHAIR**—Did you have a role in negotiating that?

**Dr Batterham**—No, none whatsoever.

**CHAIR**—Thank you very much for your attendance here today.

[12.26 p.m.]

**PEACOCK, Dr William James, President, Australian Academy of Science**

**SERJEANTSON, Professor Susan Wyber, Executive Secretary, Australian Academy of Science**

**CHAIR**—Welcome. The committee has before it your submission No. 10. Are there any changes that you would like to make?

**Dr Peacock**—No.

**CHAIR**—The committee prefers all evidence to be given in public, although it will consider any request made for evidence to be given in camera. Before I invite you to make a brief opening statement, I apologise for the delay. You heard the nature of the evidence; I think you would appreciate why it was important for the committee to hear directly from the Chief Scientist. I now invite you to make a brief opening statement.

**Dr Peacock**—Thank you. Our submission addresses our declared support for the reappointment of Dr Batterham as Chief Scientist. When it was made, the academy did issue a media release indicating our support and indicating that we had felt that in his first term he had worked very assiduously to bring notice of matters to do with science and technology and the importance of these things to the government. Our submission also offers some views that we have with regard to the office of Chief Scientist. Should I briefly mention those?

**CHAIR**—Yes, of course you should.

**Dr Peacock**—We think it is very important that the Chief Scientist should be independent and able to be representing to the government a view that is not necessarily aligned to government policies or anything like that. We went further than that. We offered the view that it might be best if the support staff for the Chief Scientist were not members of any government department, that it might be best if the Office of the Chief Scientist were seen as a completely independent body. It may be necessary that those people or some of them be secondments from government departments but we feel that if the support staff are clearly connected with a government department that may sometimes present difficulties. We talked too about our view that this position is of such importance for Australia and for the government that it would justify a full-time appointment. That is not to say that a person with a part-time appointment cannot do a good job. We just feel that if there was a full-time position they might be able to do a better job.

With regard to the sort of person who could be appointed, we did outline some key characteristics that we thought should be taken into account. For example, the Chief Scientist should be independent and be able to be independent in providing advice to the government. He or she should be a respected scientist or engineer and should have extensive networks in science and technology both at the research end and at the application end. Preferably that person would have a wide range of interests in science, although we acknowledge that they may well have specific knowledge in a more limited range of sciences. It is important that the Chief Scientist



should have a knowledge not only of science and technology but also of industry and the way Australian industry is positioned in Australia and internationally. Certainly, the Chief Scientist should have international networks and personal experience in science at the international level and have built up linkages internationally. The Chief Scientist should be aware of the characteristics and needs of the scientific community of Australia and how our scientific and research fabric works in this country. Of course, that person should be of high standing. We do not necessarily think that the person needs to be drawn from industry. The person could be drawn from research. The most important thing is to try to identify the best possible person at the time.

We did make a comment that if the position were full time it is likely that, because of the term, the person would have to have a release or a secondment from their employer whether it be a university, CSIRO or a company. Given that it is a full-time appointment and that separation was agreed to we saw that it could be an advantage in that there would be less perception of any conflict of interest. I am not implying there is conflict of interest in this present case, but it could help the matter. The position, for example, that King has in the United Kingdom is said to be a part-time position and he still holds a connection to his lab; in fact it is essentially a full-time job and he does keep contact with his research students and colleagues. I believe that is the case. We feel that it could be easier for the Chief Scientist to abide by all the necessary procedures and so on that would avoid any perception of conflict of interest if it was a full-time job.

**CHAIR**—Thank you. I am sure we would all agree with the bulk of those criteria. I do not think there would be much argument on those points. The question has arisen in regard to the appearance of conflict of interest and a range of issues have been canvassed as to what constitutes a conflict of interest, whether it be pecuniary or non-pecuniary and the different gradations of that. The Chief Scientist himself acknowledges that his job inevitably involves perceptions of conflict of interest. You would not dispute that, would you?

**Dr Peacock**—No.

**CHAIR**—The question then arises: in terms of the Chief Scientist's role, where do you think the primary obligation is? Is it to government, to the scientific community, to the public, to industry?

**Dr Peacock**—I think it is to government—for Australia and primarily through government. The representation of advice to the government should be based on the best possible assessment of the situation, say, in science, in industry and in the global issues concerned. That, in a way, emphasises the need for the independence. It is very important for that Chief Scientist to feel that he can speak to the government about what he has gathered as the best possible advice, whether it be a range of advice or a single advice. On occasion, I suspect it may be clear that it is not exactly in line with existing government policy and he is suggesting to the government that something else might need to be taken into account.

**CHAIR**—There is a slight complication here in terms of the role of the Chief Scientist. I think that the position that any government would expect is that the advice given to government will remain confidential. Any minister would expect that advice coming to them would remain confidential. If it is a dialogue between a public servant or senior officeholder and a minister, I would expect that to be the case. However, there will be occasions when a job like this requires

public comment, and I would have thought public education would be one of the roles that you would have to put down as a criterion. That may mean that the Chief Scientist may on occasions have to express controversial views. Would you agree?

**Dr Peacock**—He might have to express views that are not directly in line with those of the government, if that is what you mean. Or he may have to present views—

**CHAIR**—That is a different thing to criticising a government. We could take a view, as Senator Brown has highlighted today, that there may be differences of opinion about the question of greenhouse gas issues, for instance.

**Dr Peacock**—I would see that the Chief Scientist should only be able to represent a statement or a position on the basis of a synthesis and analysis of all of the relevant evidence, particularly scientific evidence, which is his particular skill. I think it would be important that that be the case. That piece of advice then, of course, should need to be considered with a whole range of other matters, ultimately, if it is to have an impact on policy. One other thing we mentioned in our submission is that, no matter how good the Chief Scientist is as an individual, we think it is very important to have collegiate intelligence feature in virtually every subject that he might be asked to express a view on. I know how it works with PMSEIC—I sit on PMSEIC and have led working parties for PMSEIC. I think that works very well, and I think the role that the Chief Scientist takes in those things is perfectly proper.

I do not know how often the Chief Scientist calls into place ad hoc expert committees to help him gather information and assist in the analysis and synthesis of a view from that information. I personally think that is very important, and it should be transparent. It cannot be transparent if it is specifically confidential information and advice to a minister or the government, but, as you say, for many other areas he is expected to make public comment, and I think he should represent the bases on how he comes to that point of view.

**CHAIR**—The truth is, though, that many issues in the scientific community are controversial. There is no immutable objective fact when it comes to many areas of public debate. The question of public confidence in science and in change, particularly when it comes to technological change, is quite a serious matter. Irrespective of what people say, for instance about issues with regard to environmental science—that is, there are differences of opinion between scientists on those matters—it would be surprising to me if you could establish public confidence amongst those that are critical on gene technology, for instance, if a person were a Chief Scientist and worked part-time for Monsanto. Would you agree?

**Dr Peacock**—As I have pointed out, as we see it that would be a more difficult situation than if there were full-time a person who may have been associated with Monsanto and was released from Monsanto for the term of office. Then, there are very clear procedures and so on to make sure that there is no conflict of interest. Interest and expertise do not necessarily have to add up to conflict of interest.

**Senator BROWN**—I am interested in the collegiate intelligence aspect, because that sounds to me a reasonable and important matter. Surely, one of the problems here is that too little money is going into science in the public sector anyway. You have got a single entity like the Chief Scientist on a two-day-a-week basis advising government with enormous influence. But even

with the best will in the world, without that collegiate backup, which requires staffing and established access to other points of view, would you agree that we as a nation are not putting enough into the development of science and research and development and that we really have to get a better collegiate intelligence and feedback to the body politic if we are going to make sure that we do make the right decisions with the limited amount of money that is available?

**Dr Peacock**—Yes, with regard to the last part of your question. I do not think you would find a scientist in Australia who would object to further investment—if that was what was needed—into the office of the Chief Scientist. It may be a range of positions—as Senator Carr pointed out, generally in matters to do with science it is into the unknown somewhat and you have to represent a balanced situation as to the various possibilities.

I do not think scientists would object at all to increased funds going in that way for support where they felt that the best possible paths were taken for advice to the government. It is so crucial for this country, and I think that is very clear to the scientific society. With respect to there being more science and more support and investment into research and both discovery and delivery of the discoveries, we have seen big advances in this country in this way. It is abundantly clear, even to people not in science—scientists always want more money; they think they can justify it all the time—but it is a good investment for this country, especially for the future.

We need to make the best possible policy decisions and they should be based on the best information. That frequently depends upon our own discovery process and our interactions with scientific discovery in the broad. It is absolutely critical that we are able to present to the government information that comes from international science, which is a huge body of science relative to our own.

**Senator BROWN**—What do you, Dr Peacock or Professor Serjeantson, think of the situation whereby the Chief Scientist's office is in a major coal company's building in Melbourne—Rio Tinto's building.

**Dr Peacock**—Would you like Professor Serjeantson to answer?

**Senator BROWN**—Yes.

**Prof. Serjeantson**—As we have outlined in our submission, we do not think that the business of whether the office is held in a part-time or full-time position necessarily correlates with conflict of interest. We are certainly aware that people can hold full-time positions and still have a conflict of interest. As far as my experience is concerned, I have never seen the Chief Scientist acting improperly. I have served a term on PMSEIC—I have chaired a working group, I have been a deputy chair and I have worked on a third. I know how those working groups operate: they operate very independently and they are fiercely independent. Even if he wished to exert influence over those independent views it would be rather hard for the Chief Scientist to exert influence over those independent views.

**Senator BROWN**—My question was though: are you happy that it does not detract from the Chief Scientist's need to appear unbiased when his office is in Rio Tinto's head office in Melbourne?

**Prof. Serjeantson**—I do not think that he is biased. It is a great shame that this has come to pass today. I think it has done a lot of damage to the Office of the Chief Scientist because it may make that office less attractive to outstanding people. That is a genuine serious concern that I have.

**CHAIR**—It may also lead to it being full time.

**Dr Peacock**—The fact that he has the two jobs suggests that he might need two offices. It is probably very difficult to keep the Chinese wall in place all the time in answering queries and so on. That is where we have seen that a full-time job might avoid some of the difficult perceptions.

**Senator BROWN**—Dr Peacock, you sit on PMSEIC. Are you aware that the *Beyond Kyoto* report had as a basis of its information that Roam Consultancy input? Are you aware that was paid for by Rio Tinto?

**Dr Peacock**—I was there on that day and I had the material beforehand. There was a footnote to say that there was material from that consulting agency that led to some of the figures of 10 to 50 per cent. I was not aware of who paid for the consultancy. Professor Fels was the chairman of that working party. I presume he would know. I did not know and as far as I can remember no-one asked on the day where that consultancy came from. I do remember though that a lot of the information about geosequestration on that day was new to me. I found it very interesting. It was in the report. But the conclusions from the report certainly did not push hard for geosequestration. They addressed a range of issues. I know in my own field, they addressed the need to reduce methane from agriculture. There was a balanced set of recommendations I believe. They are clearly of the utmost importance for this country.

**Proceedings suspended from 12.47 p.m. to 1.48 p.m.**

**VAUGHAN, Dr Geoffrey Norman, Chair, Cooperative Research Centres Committee**

**CHAIR**—Welcome, Dr Vaughan. The committee has before it submission No. 8. Are there any changes that you would like to make?

**Dr Vaughan**—No.

**CHAIR**—The committee prefers all evidence to be given in public, although it will consider any requests for evidence to be given in camera. I now invite you to make a brief opening statement.

**Dr Vaughan**—As you will note from my submission, I am here wearing three hats in a way: I am chairman of the CRC Committee, I am a member of the Industry Research and Development Board and I am also a member of the council of Questacon, the National Science and Technology Centre. All of those groups have had an association with the Chief Scientist in one way or another, so I think I can talk with some background and experience. Indeed, I have had an association in one way or another with four chief scientists: Professor Ralph Slatyer, Professor Michael Pitman, Dr John Stocker and Dr Robin Batterham—so I know the position well, having had activities with those people over a number of years.

The reference to my submission and your invitation list me as making a CRC Committee submission. As you will note, my submission is on my private letterhead. I made this submission in my role as chairman of the CRC Committee but not necessarily giving the views of the total CRC Committee. Indeed the committee will not see my submission until the week after next, at our next CRC Committee meeting.

Let me turn to the first term of reference on the functions of the Office of the Chief Scientist. As I say in my submission, there are good reasons to have the position as either full-time or part-time. I think flexibility is good. It can meet the needs of the minister at the time, it can ensure the availability of the best person for the position and it allows for the currency of other positions that can be a help to the position. A part-time person can put an enormous effort into the job, just as Dr Batterham has done, and, in a way, can do as much work as a full-time appointment, in any event. The other thing is that the Chief Scientist's advice is not the only advice received by the government in the areas of science, engineering and technology. There is a lot of input from many people, not the least of whom is the Chief Scientist.

In the discussion to date, we have very much considered the issue of global warming. But I would like to mention that there are 71 CRCs, covering areas such as manufacturing, mining, agriculture, environment, information technology and medicine. Dr Batterham has participated in developing a whole range of recommendations and advice to the minister over a very wide area of activity and certainly not just in the area of global warming. Indeed the CRC Program covers all of the national research priority areas. Recommendations come from 13 people on the committee, which naturally includes Dr Batterham.

Regarding the second term of reference on the potential conflict of interest arising from the dual roles of the Chief Scientist, I note in my submission that one can have a conflict of interest

whether one is full-time or part-time. A conflict of interest is not a matter of employment status; there are many other issues that one has to take into consideration in determining a conflict of interest. The key issues are the management of conflict of interest under procedures and guidelines that are appropriate for the matters under discussion, and the application of those guidelines to determine whether a conflict is material or immaterial. Very often conflict of interest issues also involve advice from probity auditors who are present at committee meetings.

The CRC Committee is not a decision-making body. We make recommendations and give advice to the minister, and ultimately the advice comes from the minister. Regarding conflict of interest and the dual role of the Chief Scientist, I should also add that Dr Batterham was a member of the CRC Committee before he was appointed to the position of Chief Scientist. Members of the committee are personal appointments; they are not representative of any particular group.

Regarding the third term of reference on whether there should be an appointment made through legislation, I think it is important to maintain flexibility within the appointment. I would have a concern if legislation were to remove flexibility. Flexibility can meet the needs of the minister at the time. The needs of the position can change from time to time and it would be a concern if the legislation were to lock something in concrete and not be flexible. Also legislation could lead to an expensive bureaucracy at increased cost to the taxpayer. I would certainly be against that. That is a brief summary of the points I have raised in my submission.

**CHAIR**—Thank you very much. You raise the issue of an understanding of contemporary needs in the marketplace. It seems to me that you are suggesting more support for a part-time position than for a full-time position. How long do you think a person needs to be out of the market before they lose their understanding? Earlier this morning, I mentioned Graeme Samuel's role at the ACCC. He obviously has a clear understanding of what the marketplace is about. He is no longer employed directly in the private sector, but one presumes that no-one would challenge his knowledge of the private sector's operation.

**Dr Vaughan**—I think Graeme Samuel's position is very different to that of the Chief Scientist. As I see it, Graeme Samuel runs a bureaucracy, effectively, and can make decisions under legislation, whereas the Chief Scientist has a small group working with him—

**CHAIR**—There are 10 people.

**Dr Vaughan**—I think that is small by comparison to the ACCC.

**CHAIR**—I would have thought 10—by offices in the Commonwealth government—is a fairly significant office.

**Dr Vaughan**—I did not realise it was 10 people, but I still think they are totally different roles, that of Graeme Samuel and that of Robin Batterham.

**CHAIR**—No, that is not the issue I am raising. Clearly, one is a regulator and one is not. That is not the issue. The issue is whether or not a person has to work for the private sector to have an understanding of how the private sector operates.

**Dr Vaughan**—No, I do not think they have to, but it can be an advantage and it can be a reason why you would pick a given person as the best person for the position.

**CHAIR**—So, whether or not a person is on the payroll of a large resources company will not necessarily inform their decisions about the resources industry?

**Dr Vaughan**—If that person is the best person for the role of Chief Scientist, I would see no problems—provided conflict of interest is managed appropriately.

**CHAIR**—Yes, I want to come to that issue, particularly with regard to the CRC Program at the moment. It strikes me that, given the disasters we have had with HIH, OneTel and various other corporate collapses in recent times, we might be forgiven for suggesting that corporate ethics are not quite as strong as they could be in this country and perhaps internationally, and that the issue of public confidence in our public officials is very important. Do you think that, in ethical considerations of roles such as the public Office of the Chief Scientist, there has to be an unmistakable break between the public role and the private role?

**Dr Vaughan**—If that is directed towards the CRC Committee, I think the CRC Committee is made up of people with great integrity. I think they all have a professional background, one way or another, which involves ethics. I myself have a background in chemistry; I am a fellow of the Royal Australian Chemical—

**CHAIR**—Dr Vaughan, what I was referring to was whether or not public office holders—for instance, the Chief Scientist—enjoy considerable public support and confidence and whether or not that criterion is served by his having this dual role.

**Dr Vaughan**—Okay. In the case of the Chief Scientist, or indeed any other person in public office, I believe the people making the appointment—the government of the time—would only appoint people that they are confident have appropriate ethics for the position. If there were any doubt, they would not make the appointment.

**CHAIR**—Can I turn then to the question of the CRC conflict of interest guidelines. You obviously are very familiar with those. Are you familiar with the ARC's guidelines?

**Dr Vaughan**—Not to the same level of detail as I am with the CRC guidelines or indeed the IR&D Board guidelines.

**CHAIR**—Or, for that matter, the Public Service guidelines?

**Dr Vaughan**—I have a bit of a background in the Public Service guidelines because I did have a government position for four years, from 1992 to 1996, and I knew the guidelines of that time.

**CHAIR**—The ARC requires that members who have employment with other bodies that deal with or are affected by ARC programs are covered by those guidelines. They say:

... access to information arising from the Board membership could be used to unfair advantage if divulged to the other organisation or body. ...the member may need to consider resigning Board membership, or severing links with the other organisation ...

or at least 'refrain from' or 'constrain participation' in discussion. Your guidelines do not say that, do they?

**Dr Vaughan**—There is a case in the guidelines where, if you have a material conflict, you do not participate in any way in the discussion or anything related to the application.

**CHAIR**—So, as far as you are concerned, the CRC guidelines for conflict of interest are adequate—or should they be more in line with the ARC guidelines or the Australian Public Service guidelines?

**Dr Vaughan**—I believe they are adequate. I have them here. I am well in tune with them. We have three categories of conflict. That determines the activities that people can participate in. The guidelines are very clear in identifying areas of conflict. For example, within the guidelines, there are 12 areas of conflict. Some of these are material and some are immaterial. I think it is adequate.

**CHAIR**—Has Dr Batterham ever had to absent himself from any consideration of CRC matters?

**Dr Vaughan**—Dr Batterham may have absented himself. Sometimes he is not available for the meetings because he has other commitments.

**CHAIR**—That is not what I am asking about. I am talking about conflict of interest.

**Dr Vaughan**—In terms of conflict of interest, I cannot remember a time when Dr Batterham absented himself from a decision. Because we are a committee which gives advice; the formal decision-making process is not often done in a formal sense. As chairman I gauge discussion around the table when an application is considered. If I feel that a consensus position has been reached then I indicate what I believe that consensus is. If people agree with that, we move to the next agenda item. Anyone can call for a vote and occasionally we have had votes, but I cannot remember exactly which times we have had votes. That is when, obviously, the conflict of interest guidelines would have to be fully implemented.

**CHAIR**—So, as far as you are concerned, it is only when there is a formal vote?

**Dr Vaughan**—Yes.

**CHAIR**—It is only when there is a formal hands in the air situation?

**Dr Vaughan**—Yes, provided you have not been conflicted out of the discussion anyway.

**CHAIR**—Can you recall a circumstance where a non-pecuniary conflict of interest has led to an individual refraining from or being constrained from participating in any discussion on the CRC board?



**Dr Vaughan**—It depends on ‘non-pecuniary’. I can remember where people have absented themselves from the discussion because they believed on a personal level that they, for one reason or another, have been conflicted, but they have not gone to the extent of saying what that level is or what the reason is.

**CHAIR**—You are not aware of—

**Dr Vaughan**—It is a matter of conscience where people have withdrawn.

**CHAIR**—How often would it occur where people would withdraw?

**Dr Vaughan**—Occasionally—by no means frequently.

**CHAIR**—On those occasions where it has occurred, and there are not very many, there was no specification that a non-pecuniary conflict of interest was apparent?

**Dr Vaughan**—I cannot recall one.

**Senator BROWN**—Just on the three categories that you referred to, Dr Batterham told us he was in category 2, which is:

Those cases where there is a clear association with the application or an established CRC which should be specifically made known to the Panel or Committee, but where it is not so direct that it should deprive the Panel or Committee of the Member’s expertise and knowledge during the consideration of the application or the issue at hand.

**Dr Vaughan**—Correct.

**Senator BROWN**—Then there is category 3:

Those cases where there is a clear association with the application or an established CRC eg. A Member is a key researcher or is similarly very closely involved within and responsible for the success of the proposal.

As chief technologist for Rio Tinto, isn’t Dr Batterham very closely involved within and responsible for the success of proposals put before this evaluation process?

**Dr Vaughan**—In the case of Dr Batterham, as I have indicated in my submission, a special consideration was made because a firewall arrangement, we were advised, could be put in place. We have accepted that for Dr Batterham, with the company advising us that the firewall is in place. On any detailed issues associated with a CRC application, he will not be involved or be informed of them. We have been willing to accept that, not only for Dr Batterham but also for some other people on the committee—for example, people who have been associated with the Australian Vice-Chancellors Committee. They could be conflicted for every university unless there was a firewall arrangement put in place. Similarly, people who have had executive positions on the ARC could be conflicted if people have joint grants between an ARC and a CRC. We have allowed for firewall situations provided that we have evidence and hold evidence that firewalls are in place.

**Senator BROWN**—But that is not in the guideline here. You drew our attention to three categories.

**Dr Vaughan**—If we are advised that a firewall is in place, the activities of a person of that type you are trying to identify would fall under category 2.

**Senator BROWN**—Yes, but category 3 says that, where you have a person who is very closely involved within and responsible for the success of a proposal, they ought to be in category 3—that is, they should absent themselves.

**Dr Vaughan**—We have advice that, in the case of Dr Batterham from Rio Tinto, there is a firewall and that he does not have any personal involvement in an application in which Rio Tinto participates.

**Senator BROWN**—He is chief technologist for that corporation.

**Dr Vaughan**—He could still be left out in the case of a CRC application.

**Senator BROWN**—So does he absent himself when there is a CRC application?

**Dr Vaughan**—I do not know how Rio Tinto enforce it, but we have a letter to say that they do enforce it.

**Senator BROWN**—I am talking about the consideration of your committee.

**Dr Vaughan**—We have received advice from Rio Tinto that a firewall is in position and, against that, we believe that Dr Batterham's role is category 2—although of course he could say that he is category 3 and is not going to participate.

**Senator BROWN**—So you have recategorised him from 3 to 2?

**Dr Vaughan**—No, I have said that, on the advice we have from CRA, he does not have a clear personal involvement in applications.

**CHAIR**—We keep coming across this issue of the firewalls here. What evidence do you have on that, other than a statement from Rio Tinto? Is that the extent of it?

**Dr Vaughan**—We have a statement from Dr Batterham that a firewall is in place, and that is confirmed by a letter in writing from the company secretary of Rio Tinto.

**CHAIR**—That is it, though?

**Dr Vaughan**—Yes.

**Senator BROWN**—That is extraordinary. What is this firewall?

**Dr Vaughan**—We believe it is a case where the company does not involve Dr Batterham in the discussion of the involvement of Rio Tinto in CRC applications.

**Senator BROWN**—So the company write you a letter and say that he is not involved in this. You know he is chief technologist for that company—he is their top scientist, effectively.

**Dr Vaughan**—We are willing to take people at their word. We believe they show integrity, and we accept it. If there was evidence that one could show us that that was not the case, we would act on it.

**Senator BROWN**—I will give you some evidence. Rio Tinto is a coal company that wants to keep mining coal in the future and putting it into coal-fired power stations, and it sees that its option for being able to do that is to get geosequestration going. You have been considering matters and allocation of moneys to geosequestration.

**Dr Vaughan**—In a previous selection round a CRC was formed for sequestration, yes.

**Senator BROWN**—That is a conflict of interest.

**Dr Vaughan**—It depends on how one sees the conflict against our categories of guideline.

**Senator BROWN**—We had evidence this morning from Professor Seumas Miller, who is Director of the Centre for Applied Philosophy and Public Ethics, that if it were a central matter of interest to the applicant it would present a conflict of interest. I put it to you that geosequestration is of central importance to Rio Tinto's future.

**Dr Vaughan**—I would think geosequestration is of importance to everyone's future on the committee.

**Senator BROWN**—Including Rio Tinto's?

**Dr Vaughan**—Yes—and mine.

**Senator BROWN**—But there we have it. It is of central interest, and therefore it becomes a matter of conflict. You are just taking it on the word of the company that their chief technologist sheds that interest when he is on your committee and evaluating competing applications.

**Dr Vaughan**—If I go back two years to the previous selection round when the centre for sequestration was put in place on advice from the committee to the minister, I do not know that a vote was taken. Again, I think it was one of these situations where a consensus position was obtained. The final advice of the committee is also influenced by the advice we receive from expert panels. They are people who are not on the committee; they are independent of the committee but they are appointed to expert panels to go over the applications in a fine way. They evaluate the applications, get external evaluation, interview the applicants and give us advice on the quality of applications.

**Senator BROWN**—But I find it extraordinary that we have Rio Tinto, with a multimillion dollar interest in getting outcomes favouring it for government moneys to be expended on

geosequestration—it is competing with other interests like solar power—and the Chief Scientist is involved in evaluating this process with your committee, and you say you got a letter from Rio Tinto saying, ‘There’s a firewall in there to keep the Chief Scientist, who is also our chief technologist and paid by us, somehow magically disinterested.’ Are we really meant to believe that?

**Dr Vaughan**—Going further back in the selection rounds, there was a selection round when we created a CRC for renewable energy with seven years of funding. Dr Batterham was in the decision making process that gave advice to the minister. It was subsequently funded.

**CHAIR**—You keep talking about decisions being made. Previously you said that your committee only makes recommendations.

**Dr Vaughan**—They are decisions to recommend something to the minister.

**CHAIR**—I understand. It is a subtlety that may be lost on some people by the way it is put. I agree that it is the minister’s job to make decisions. Equally, the minister takes responsibility for defunding of CRCs, which is a point we have been discussing at some length in this building.

On Rio Tinto’s web site, the Office of the Chief Technologist is described thus:

This team provides a technology overview and maintains an awareness of emerging technology & related issues, as they do or may affect Rio Tinto. They manage the External Research Programme, working with providers such as universities and government research organisations; and the Intellectual Property, and legal portfolio. Senior members of this team are also part of Rio Tinto’s Foundation for a Sustainable Minerals Industry.

You have just said to us that you have advice from the company that Dr Batterham does not participate in those decisions, yet he heads an office that, by that description, does all the things that you are saying he has no part in.

**Dr Vaughan**—That is the advice we have received.

**CHAIR**—And you have accepted it?

**Dr Vaughan**—Yes. I will also say that there are other members on the committee in a similar fashion. We have the research director of Telstra and we have research directors of CSL and large companies. They are in similar roles. They and the committee have elected not to have them in a firewall position because they are not the Chief Scientist, they are not the head of the ARC or things like that. They have to handle CoIs as well. It is just not one person a CoI affects; it affects every member of the committee, many of whom are in similar roles.

**Senator BROWN**—What are your criteria for a successful firewall?

**Dr Vaughan**—That the member to whom the firewall applies will not receive any information on an application for a CRC.

**Senator BROWN**—Have you got a written, established definition of what an adequate firewall for you is?

**Dr Vaughan**—No. The company writes us a letter with words to the effect of those I have just used. We are willing to accept that.

**Senator BROWN**—Dear oh dear! In the 2002 round, Rio Tinto was a core participant in all four successful CRC applications in the mining and energy sector. Rio Tinto has been very fortunate there.

**Dr Vaughan**—It was also unsuccessful in some applications. Did you note that?

**Senator BROWN**—It had a hand in all four successful ones. To what degree did Dr Batterham absent himself from any part of the decision making process?

**Dr Vaughan**—I cannot remember exactly whether he was there or not. I cannot answer that question; I am sorry. The essence of those comments is that the CRC grant is given to Rio Tinto. The CRC grant is given to a centre. There are many members in that centre. Rio Tinto is but one of a number of members. They, in fact, also give money to the centre. So it is not as if we are siphoning money to Rio Tinto. We are causing them a financial liability just as we are giving Commonwealth money to the centre.

**Senator BROWN**—To get back to my previous question, you have told us that you do not remember Dr Batterham absenting himself from one of these deliberations on the basis of a conflict of interest.

**Dr Vaughan**—I cannot remember back two years ago, no.

**Senator BROWN**—Your last point brings up my last point, which is: when you are considering applications for funding of cooperative research centres, do you take into account the wherewithal of the applicants to be able to fund it themselves?

**Dr Vaughan**—Very much so. One of our criteria has always been the funding relationship—how much money is asked for, how much money is coming from other quarters and whether there is value for money for the taxpayer.

**Senator BROWN**—What about the inability of good research being offered to get funding? Let me be explicit about this. If you are in the business of renewable energy technology it could be argued that there is very limited funding. There are not massive profits coming out of that sector yet. It is not a century-old technical application. But the coal companies are a different kettle of fish. They are huge. They have multimillion dollar profit lines and, in some cases, billion dollar profit lines. Do you take this into account when you get applications for new research?

**Dr Vaughan**—Yes, the funding issue is taken into consideration. To qualify for a CRC all you need is to have dollar for dollar. Some people can get greater leverage than that—and I think that is good value for the Commonwealth when that happens—but to qualify for a CRC you only need dollar for dollar. You mentioned the capacity of some of the sectors, like the environment sector, is to meet funding compared to let us say the mining sector. In our CRC compendium, which I have given Senator Carr a copy of, you will notice there are 17 environment CRCs

compared to I think it is eight mining CRCs. So it shows you that the environment sector has the capacity to put in high quality applications and get funded.

**Senator BROWN**—I think you missed my point in the earlier question, though. For example, if we are looking at the mining CRCs, do you take into account the inability of researchers to fund their project if it has great merit as against the ability of competitive bids for that money to research their projects, which may have equal merit?

**Dr Vaughan**—CRC programs are competitive against various selection criteria. In the current selection round there are four selection criteria, which, following a recent evaluation, have replaced nine selection criteria from the previous round. It may be that a person was not successful in the previous round, not because of funding but because of one of the nine selection criteria—or more than one.

**Senator BROWN**—It might be that they are not successful simply because they cannot match funding requirements dollar for dollar; is that not true?

**Dr Vaughan**—If they cannot match dollar for dollar they do not qualify to put in a valid application. They are the terms of reference that have been put in since day one of the CRC program in 1990.

**Senator STOTT DESPOJA**—You are one of the few witnesses, I believe, who has had experience with or knowledge of previous chief scientists. I was just wondering if you would outline for us your knowledge of, in this circumstance or previously, the appointment process of the Chief Scientist, be it a previous full-time position or current and previous part-time positions.

**Dr Vaughan**—I am not overconfident that I can say how they were appointed. I said that I had an association with previous chief scientists and as I understand it they have all been appointed by the minister to be an adviser to the minister of the time. At one stage it was indeed the Prime Minister, in the case of Ralph Slatyer. Ralph Slatyer was a full-time appointment. He could well have had a conflict of interest because he came out of ANU. In the very first selection round there were several ANU CRC centres established even though the Chief Scientist of the time had immediately come out of ANU. I was not on the CRC Committee then but I would say that the committee at that stage saw no problems of conflict of interest.

I knew Michael Pitman. He showed some interest in my activities at the time when I was head of the Therapeutic Goods Administration, a scientific based organisation, and I had discussions with him. More recently, I knew Dr John Stocker. He was not only Chief Scientist but also the co-author of the Mercer-Stocker review of CRCs, in 1998. As I understand it, all of those people, like Dr Batterham, were appointed by the minister for science, with responsibilities for science at the time.

**Senator STOTT DESPOJA**—Are you able to give us your impression, even anecdotally, or if you have some more insight or knowledge of why the policy change occurred with government—that is, the move from a full-time Chief Scientist to a part-time Chief Scientist? Do you have any indication as to why that happened?

**Dr Vaughan**—Not really; no. I guess it was a decision made by the minister, and that is the point of flexibility that I mentioned earlier.

**Senator STOTT DESPOJA**—Indeed. I am happy to explore that with the department, but I just wondered if you had anything in relation to that issue. I note that both senators Carr and Brown asked whether you were aware of any circumstances in which the Chief Scientist had to absent himself from meetings due to so-called conflict of interest arrangements. I am not interested in the conflict of interest reasons. I want to go back to your comment and your answer to Senator Carr that you were aware of the Chief Scientist having to perhaps leave meetings or not be at meetings because of other commitments. Are you aware of any situations where Dr Batterham's commitments to Rio Tinto caused him to leave a meeting, a function or an event earlier than he would have had to otherwise? I wonder if there is a clash of commitments that may go to the heart of your original response.

**Dr Vaughan**—I cannot identify any particular time that is directly related to Rio Tinto. He could have been absent because of other commitments in his role as Chief Scientist. I have not asked him those questions. If there were important matters or agenda issues to be considered, he would invariably contact me by telephone if he was not going to be present to discuss issues on the agenda. That did not happen all the time because there may have not been any particular point in which he wanted to have input and therefore he would just leave it to members of the committee. That is all I can say about his absence. I do not know whether it was because of his roles and responsibilities with Rio Tinto or as Chief Scientist or indeed for personal reasons.

**Senator STOTT DESPOJA**—I see. In your submission you make what I think is a curious comment. Essentially you say that you doubt very much whether Dr Batterham could have done a better job if he had been working full-time. Are you suggesting that he has worked not only to his full capacity but full-time and at least 35 hours a week? It is a curious statement.

**Dr Vaughan**—I think Dr Batterham is one of those people who has a capacity to work 200 per cent. Although he has two part-time jobs, he is working as if they were both full-time jobs. I believe he works extraordinarily actively in both roles. I just admire him for his energy, effort and contribution that he has made. I think I have made that point in my submission as well.

**Senator STOTT DESPOJA**—In fact, you also state in your submission that Australia is in the best position ever in relation to science, technology and innovation. There is increased attention to social and environmental issues, which you say is a result of Dr Batterham's advice. Am I correct in paraphrasing you in that way? If so, can you please explain to us how you reached those conclusions?

**Dr Vaughan**—In the time that Dr Batterham has been Chief Scientist, we have seen such things as the Innovation Summit, the establishment of national research priorities, the mapping exercise which put the whole of Australia's research effort into context, a Department of Education, Science and Training review of collaborative research, two Backing Australia's Ability programs and large changes in CSIRO, which I am certain Dr Batterham had involvement with at one level or another. I just think that his contributions through PMSEIC, the coordinating committee of science and technology and all those other areas that have come through in his time have made an outstanding contribution. We can always say that we never have enough money for science, just as Jim Peacock did before lunch. I agree with that, but we

have to put everything into context. We have to realise that the government has other responsibilities. Even against that, I believe that science, especially since Backing Australia's Ability program has come through, is in a better position in regard to research, technology and innovation than it has ever been, though I agree with Jim that we could always have better.

**Senator STOTT DESPOJA**—One of the witnesses earlier today from the World Wide Fund for Nature suggested that the Chief Scientist had a problem with visibility, that he was not as visible as he could be. I do not want to misrepresent her remarks, but I think that is related to two things. She mentioned the education and information roles, but specifically mentioned relations with the environmental science sector. Do you have a view on that issue or do you think by virtue of the evidence you have just given us that he is indeed quite visible in the areas of science in Australia?

**Dr Vaughan**—Because of my background in science and technology, my attendance tends to be at the science and technology activities. Dr Batterham has made a big appearance at those activities. Last week at the Academy of Science there was a symposium on measuring quality in research. He gave a keynote address there. The week before at the Cooperative Research Centres Association meeting—not the committee meeting but the association meeting—in Adelaide he gave a keynote address on innovation and technology. So I see him regularly.

As I have mentioned before, I am a member of the IR&D Board. He has appeared at the IR&D Board to give his views as Chief Scientist on the activities of the board. As I have also said, I am on the council of Questacon. He has appeared in front of the council of Questacon to indicate his views on the development of education and directed education to improve science participation in Australia. So my view is that he has made himself very much available. Whether the other sectors have invited him or not, I would have to leave it to the other sectors to tell you that.

**Senator STOTT DESPOJA**—Thank you very much.

**CHAIR**—I have a question about your capacity with regard to the CRC program and the recent changes to the CRC program in relation to public interest research, which saw a number of CRC programs defunded. I have seen some of the letters that you sent out. The issue of commercial viability was in all the letters I have seen. You have also said to us that you thought there were more environmentally based CRCs than there were mining CRCs. Under those existing guidelines, how many of those environmental CRCs do you think will meet the criteria in future rounds?

**Dr Vaughan**—I do not have that data with me. I can answer that in general terms. In this current selection round, 52 applications for funding were received. The CRC Committee met and looked at the stage 1 process, which is clearly defined in the guidelines. At that point, 19 CRCs were cut out on competitive grounds, leaving 33 continuing. Of that 33, there are still a number of environmental CRCs.

**CHAIR**—Which ones?

**Dr Vaughan**—Water, weeds, pest animals; there are number. I cannot recall them all but we can give you a list.



**CHAIR**—But the public interest environmental research ones, like those for rainforests, reefs and coastal—

**Dr Vaughan**—The CRC for coastal did not apply in the end.

**CHAIR**—It lost out. At what point did you tell them—

**Dr Vaughan**—I will just get a reference from the department on that. I am sorry; I thought the coastal application did not come in. Coastal was in it.

**CHAIR**—I can see a difference in terms of the commercial applicability of a CRC for weeds, which might be somewhat higher than a CRC for rainforests.

**Dr Vaughan**—You have to remember that we have funded Rainforests for what will be 13 years by the time they finish their funding. They have to meet some extra criteria for being a re-funded CRC and especially a third round CRC, rather than a new application. Their competitive application is considered on those grounds. Similarly, Reef would have been coming up for a third funding. They were considered against the selection criteria by the CRC Committee to see if they were competitive. Against the criteria, they were found to be clearly uncompetitive compared to the other 33 that are going ahead. Those decisions were clearly made by the committee and advice was given to the minister accordingly. He accepted that advice.

The committee has a great depth of knowledge of research management activity. The committee can judge an application against the guidelines to see whether it is competitive or not. The ones that were clearly not competitive were advised not to go ahead. That was against the guidelines that were suggested by a recent evaluation where applicants themselves said, ‘We’d like to know earlier whether we’re going to be knocked out or not. We do not want to go for six months or a year putting more and more resources in, to find out at the end of the year that we’re being knocked out. We’d like to know early.’

**CHAIR**—Was the question of public benefit research a change to the guidelines?

**Dr Vaughan**—Yes. The guidelines have changed to the extent that there is an emphasis on commercial outcome or economic growth. Public good CRCs have the opportunity, I believe, under the concept of economic growth to put in an application which can meet the criteria. If applicants do not do that, they do not score well in the criteria.

**CHAIR**—Of those 19 that were successful, how many would you describe—

**Dr Vaughan**—Do you mean the ones that were unsuccessful?

**CHAIR**—No, I am talking about the ones that were successful.

**Dr Vaughan**—There are 33 of those to date.

**CHAIR**—Of course there will be fewer than that in the end, but how many of those which have gone on to the next stage would you describe as ‘public benefit’ CRCs?

**Dr Vaughan**—I gave an example earlier of some of them just off the top of my head. The department may have those figures; I have not got them with me.

**CHAIR**—All I am asking is: is there not a difference between an environmental CRC and a ‘public benefit’ CRC? For example, weed control or pest animals I would put in a different category.

**Dr Vaughan**—I find it very difficult to define this difference between public good, commercial, public benefit et cetera. Every application has to be considered on its merit. There is a whole spectrum of activities that can be funded through the CRC program—and we treat them that way. Every application is an individual application, and I find it very difficult to say whether it is public good, public benefit et cetera. Let us look at the Antarctic CRC. It is being funded for three rounds. I do not know what you would call that.

**CHAIR**—I would say that was a public benefit CRC because it is a treaty obligation that it not be commercialised.

**Dr Vaughan**—They do have some other activity going on. They claim that all the weather of the world starts in Antarctica so meteorology is dependent on the studies they are carrying out there. Meteorology has a benefit for transport, farming—you name it. That can be linked to economic growth.

**Senator BROWN**—How do you evaluate the advantage of an environmental good coming out of research in terms of these twin criteria of commercial outcome and economic growth?

**Dr Vaughan**—The CRC Committee in the stage 1 process does not evaluate that point; it evaluates the competitiveness of applications, one against the other. The expert panel, who are the next step, will be the ones to look at research quality; economic growth versus commercial considerations, depending on the application; their business structure; their education program; the funding they are asking for; the funding coming in et cetera. That will be done by expert panels, not by the committee.

**Senator BROWN**—How do you assess the value of an Australian native animal or plant becoming extinct?

**Dr Vaughan**—You have to do that on a case-by-case basis against the information provided by the applicant.

**Senator BROWN**—How do you get the commercial or economic value of that?

**Dr Vaughan**—The applicant will give an indication of possible commercial outcome. They will do an economic appraisal. They will have a consultant come in and do an economic benefit analysis. That is commonly done by applicants and by centres through their day-to-day activities.

**Senator BROWN**—What is competitiveness in this case?

**Dr Vaughan**—It is whether one applicant is likely to be better than another in going further in the application chain. You could use an analogy: let us say that we are experts in sports administration and we are going to give grants to sports. We get applications from rugby, hockey, tennis and cricket. If we are experts in that field, we can make a good judgment of which ones are more likely to be successful in going further than others. We might say that they will all go forward. We might say that none of them will go forward. But we will have that background information. That is just an analogy. The CRC Committee, with their expertise in research management, do the same job and then leave it to the next level of experts to carry out the finetuning of the evaluation process.

**Senator BROWN**—If you have an evaluation of any species in Australia that is headed to or has reached extinction in terms of commercial outcome or economic growth, would you provide that to the committee please, Dr Vaughan?

**Dr Vaughan**—I cannot, I do not believe, in terms of a question like that.

**Senator BROWN**—No, you cannot; because it has not been done. Would you have a look? Would you ask your committee and researchers—because I do not believe it has been done.

**Dr Vaughan**—I do not believe I am in a position to do that.

**Senator BROWN**—No, I do not think so either.

**CHAIR**—Thank you for coming today, Dr Vaughan. It is much appreciated.

[2.35 p.m.]

**COOK, Mr Grahame John, Deputy Secretary, Department of Education, Science and Training**

**KRIZ, Mr George, Chief Lawyer, Department of Education, Science and Training**

**WALTERS, Mr Colin John, Group Manager Science Group, Department of Education, Science and Training**

**CHAIR**—Welcome. Are there any changes that you would like to make to your submission, No. 14?

**Mr Cook**—No, thank you.

**CHAIR**—The committee prefers all evidence to be given in public, although it will consider any requests for evidence to be given in camera. I now invite you to make a brief opening statement.

**Mr Cook**—Thank you, Chair. I think our submission is fairly self-explanatory. The department's role in respect of the Chief Scientist and the whole-of-government activities in which he is involved is to provide secretariat support direct to the Chief Scientist—assistance such as helping him to prepare presentations and papers as part of his functions. We support the activities of the Prime Minister's Science, Engineering and Innovation Council, PMSEIC, by way of normal secretariat support, and we support the working groups of PMSEIC by way of providing secretariat and other forms of support. In the case of the working groups, it is normally in conjunction with the line portfolio in whose area that working group may be operating. The Office of the Chief Scientist also provides support to the Coordination Committee on Science and Technology, which is a committee comprising all Commonwealth departments and agencies involved in science. That is briefly our role and we are happy to answer any questions.

**CHAIR**—Thank you very much. Can I begin by drawing your attention to a resolution of the Senate on 9 October 2003 which required the disclosure of the contract for the Chief Scientist's employment, which was denied at the time—I presume, on commercial-in-confidence grounds. Why did you change your mind and attach the contract to this submission?

**Mr Cook**—I will need to get someone to refresh my memory, but we did table the contract on 30 October.

**CHAIR**—In 2003?

**Mr Cook**—That is correct—2003.

**CHAIR**—Thank you. The question of the appearance of the Chief Scientist at Senate estimates—obviously, the Chief Scientist had appeared before a number of other parliamentary

committees. Do I take it that the Chief Scientist appearing before parliamentary committees is no longer an issue within the department?

**Mr Cook**—The Chief Scientist has not had any problem with appearing before general parliamentary committees, as he indicated this morning. The minister's view has been that it is not appropriate for the Chief Scientist to appear at Senate estimates hearings for the reasons that have been articulated previously.

**CHAIR**—Making the position part time was a decision by the government, was it not?

**Mr Cook**—Yes. It predates my time, but that is my understanding.

**CHAIR**—Are any of the officers able to advise the committee as to what the rationale was for the change in the employment status of the Chief Scientist?

**Mr Cook**—My understanding is that the government at the time took the view that they would like to have somebody involved in this position who was an active, working scientist and who could bring the knowledge and currency of those activities to the task, and they saw that as providing a better basis of advice than a full-time Chief Scientist. I think the broad rationale for that was articulated by Senator Minchin at the time of Dr Batterham's appointment.

**CHAIR**—Can you advise the committee how Dr Batterham's involvement with Rio Tinto assists him in the coordination of government activities in science, engineering and innovation, which of course is specified in the terms of his contract?

**Mr Cook**—I think the experience the Chief Scientist brings to the job from his involvement with Rio Tinto—and therefore with industry research and development more broadly—together with his earlier career at CSIRO and elsewhere is a very useful background to have. It provides him with immediate standing in very important areas of the science and research community and in industry. That certainly gets him through the door in a way that many other people would find difficult. I think that is a very important dimension of Dr Batterham's work.

**CHAIR**—Is it the case that his contract does not refer to his role on the ARC or the CRC Committee?

**Mr Cook**—That is correct.

**CHAIR**—We have been advised by Dr Vaughan that Dr Batterham is involved with the CRC in a personal capacity, yet the CRC Committee web site highlights that Dr Batterham is there as Chief Scientist and not as a private citizen.

**Mr Cook**—No. My understanding is that Dr Batterham was a member of the CRC Committee prior to his appointment as Chief Scientist. Therefore his appointment to the CRC Committee was initially in a private capacity. He has maintained that role subsequently.

**CHAIR**—So his membership is merely coincidental?

**Mr Cook**—Yes. There is no particular reason why the Chief Scientist needs to be a member of the CRC Committee, but he had that pre-existing role.

**CHAIR**—And the ARC?

**Mr Cook**—I think that when the current ARC model was being developed it was thought prudent to have the Chief Scientist on the board. So the ARC legislation actually makes him an ex officio member of the ARC board. There was a deliberate decision that, because of the broad sweep of research that the ARC funds, having the Chief Scientist's perspective on the board would be valuable.

**CHAIR**—I turn to the issue of the conflict of interest, which is a subject of concern to the committee. Does Dr Batterham's contract of employment require him to adhere to the APS values and code of conduct?

**Mr Cook**—That is correct.

**CHAIR**—Why should he have to adhere to that code of conduct if he is not a public servant?

**Mr Cook**—Because the Chief Scientist's role is about providing high-level policy advice to senior ministers, including the Prime Minister, the intent was to make it clear that he was going to do that in an appropriate way. As I understand it, the intent of the various provisions in his contract that deal with adherence to the code, conflict of interest and declaration of pecuniary interests is to put Dr Batterham in a situation where he is operating in an equivalent way to a public servant.

**CHAIR**—'Equivalent' to a public servant?

**Mr Cook**—In that regard, yes.

**CHAIR**—So it is just a private contract?

**Mr Cook**—No, it is not the same as a normal private contract.

**CHAIR**—It is not? Why not?

**Mr Cook**—Where we employ a contractor to the department to do a job of work for us, we do not have totally equivalent provisions for that—for example, the APS code.

**CHAIR**—Would Mr Geoff Spring's contract have similar provisions in it?

**Mr Cook**—He is required to comply with standard Commonwealth provisions, but I am not sure about the APS code. I would have to check that.

**CHAIR**—Could you check that for me?

**Mr Cook**—Yes.

**CHAIR**—The issue is important in terms of whether or not he appears before estimates committees. All these proceedings could have been avoided if he had come to the estimates committee. I am not quite certain why he has to meet public service provisions if he is not a public servant. Surely the normal conflict of interest provisions would apply, so why be so specific?

**Mr Cook**—As I said, I think it was because of his high-level policy advising function. Clearly, ministers took the view that that was the safest way to go in terms of making sure that the standards of behaviour and conduct expected of him were clear and transparent.

**CHAIR**—If I could turn to those guidelines, on page 84 they say that APS employees should not seek outside work if it is in conflict with or perceived to be in conflict with their official duties. That is right, isn't it?

**Mr Cook**—That is correct. That is what applies to—

**CHAIR**—That would apply to you, wouldn't it?

**Mr Cook**—Yes.

**CHAIR**—Mr Walters and Mr Kriz, you are not entitled to go out there and get a job with a private law firm, are you?

**Mr Kriz**—Not without getting consent first, no.

**CHAIR**—Even if it were to keep your hand in with the private market?

**Mr Kriz**—That is correct. Without the agreement of the employer, that would be the position.

**CHAIR**—So that is the standard provision for the Public Service. You are also required under the APS guidelines not to be in a contractual relationship with the Commonwealth, receive financial assistance if you are a director or have a primary role in any other body that has a primary role of lobbying ministers, members of parliament, government agencies or authorities about issues relating to a person's official duties. That is also true, isn't it?

**Mr Cook**—That is correct.

**CHAIR**—So how does that fit with the Chief Scientist?

**Mr Kriz**—Absolutely squarely. The contract clearly sets up a working relationship. If it were not in the contract and the method of employment were in accordance with the basis that you have just suggested, you would raise it as an issue. However, given the fact that it is contemplated and in fact stated clearly that he does have another position, there is no mystery about it.

**CHAIR**—No, it is not a secret.

**Mr Kriz**—The contract contemplates it and the contract would operate in such a way as to enable those provisions in the APS guidelines in effect to operate without any problem.

**CHAIR**—I am just wondering whether or not it makes a laughing stock of those provisions and, if you acknowledge that he actually does this other work, whether or not he can fulfil those conditions that you have put down in that contract.

**Mr Kriz**—Those conditions are amended by virtue of the fact that he has been given permission to do that. I can approach the CEO of my department and seek to be engaged in some external activity. If I get that sort of the consent then there is no breach.

**CHAIR**—So you could get a job with Minter Ellison, which looks for government work in contracts and consultancies and what have you within the department, and that would be all right?

**Mr Kriz**—It is theoretically possible, yes.

**CHAIR**—It is not likely, though, is it?

**Mr Kriz**—Not in my case, because I have made the choice of working for the government.

**CHAIR**—I know, and you have done a very good job of it. But it just strikes me that we do have a problem here insofar as you have a formal set of arrangements which are almost impossible to meet. Let me put it to you another way. This is notwithstanding Dr Batterham's very high reputation as a scientist. I am not proposing that he has done anything improper in a personal sense. I am just saying that his is a situation where, as the Chief Scientist with the dual role as chief technologist for a major resource company, he is in a private company heading a team which provides technological overview and maintains an awareness of emerging technologies and related issues that affect Rio Tinto. He manages external work programs, working with providers such as universities and government research organisations, and intellectual property and legal portfolios. Senior members of the team are also part of Rio Tinto's foundation for a sustainable minerals industry. It just seems to me that he cannot do both.

**Mr Kriz**—The government has taken the view that he can. This, as a legal document, can operate after that sort of decision has been taken. You may take a different position on the global value of that decision having been made and so may I as a private citizen. But, as a public servant, I enforce what the government of the day wishes to have in place.

**CHAIR**—I am sure you do. I am sure you continue to do so. But it strikes me that it makes it difficult for anyone to fulfil the functions of that contract. I would go a bit further than that. With regard to the clauses of that contract, would you agree that there is a variation between the requirements of the APS guidelines, the requirements of the conflict of interest provisions of the ARC, particularly for board members, and the requirements for the CRC program?

**Mr Cook**—They are not identical, if that is what you mean. That is certainly the case. The APS provision is very broad.

**CHAIR**—Absolutely.



**Mr Cook**—It deals with conflict of interest in the very broadest terms. The CRC provision reflects the fact that that committee is doing a particular job of work, and it is crafted around issues which could arise during a selection process, which is a competitive process and needs to be handled very carefully. I am not as familiar with the ARC provision, but it was clearly crafted in view of the roles and responsibilities of the ARC board. But there is no conflict between them. The basic principles underpinning them—

**CHAIR**—Except that one is weaker than the other—I put it to you in those terms. One set of guidelines defines ‘conflict of interest’, pecuniary and non-pecuniary; one defines it very narrowly, and there are substantial differences between real and apparent conflicts of interest in all of these circumstances. But what I put to you is that there appears to be a weakening of the conflict of interest requirements when we look at the APS, the ARC and the CRC programs. How do you respond to that proposition?

**Mr Cook**—I would not have said it was a weakening; I would have said it is more specific in the case of the CRC.

**CHAIR**—More specific?

**Mr Cook**—Yes, in the sense that it is trying to deal down at the level of an individual application. The APS code of conduct is very broad. It states:

disclose, and take reasonable steps to avoid, any conflict of interest (real or apparent) in connection with APS employment

It is just a broad statement of principle. The CRC selection process basically says that, if you have a direct relationship with one of these applicants, regardless of how you might interpret that principle, then you are in category 3 and you cannot participate in the discussion. If you have a lesser relationship, but you are not directly involved, then you might be in category 2. If you have five shares in BHP, as long as we know you have five shares in BHP you can fully participate, because you cannot possibly benefit from your five shares in BHP. The CRC program was trying to deal with a particular selection process and the very specific instances of conflict of interest which can arise in that process. So I would argue that it puts flesh on that broad principle.

**Mr Walters**—By way of assistance, if you look at the APS guidance called *APS values and code of conduct in practice*, you will see that chapter 9 on conflict of interest refers back to a report of the committee of inquiry in 1979, known as the Bowen report, which set out a code of conduct, later endorsed by the government. That states, ‘When an office holder possesses, directly or indirectly, an interest which conflicts or might be thought to conflict’ and so on, ‘he should disclose that interest according to the prescribed procedures.’ What you have here in the CRC program are prescribed procedures, which are intended to apply to that particular program. The same with the ARC program, so it is consistent with the guidance that we get from the APSC.

**CHAIR**—But the ARC program actually refers to professional interests, such as a particular line of research and so on that you would like to see pursued or you have experience in. It goes to the question of whether or not a former colleague or research partner may well be involved in any application. I am told that the ARC ask assessors and grant applicants to identify persons on

the list of applications, so therefore that grant could be assessed by somebody else. The ARC program has a very tough arrangement, which I do not see replicated in the CRC program. It would seem to me to be more consistent with the general line being pursued by the APS. How do you respond to that?

**Mr Cook**—The CRC Committee operates its guidelines in a way that if someone has a very close personal relationship with a researcher, even if they do not have a direct interest in the application, then members of the committee in my experience automatically disclose that. So they are conscious of that, but the ARC is dealing with researchers. We are a small country. Again, they have tried to adapt the general principles to their particular issue, which is that they may well have a professional interest in ensuring that a particular area of research is undertaken, so their type of conflict of interest can be of a different nature, but it can still be quite real. It just shows you the variation you can get in conflicts of interest. In my own case, as a member of a CRC Committee, I also fill in the CRC declarations of interest and operate according to their rules, in addition to my general obligations under the APS code, my declaration and the way I operate with my secretary in respect of conflicts of interest.

**CHAIR**—I would not expect any different from you, Mr Cook.

**Senator STOTT DESPOJA**—I want to go to the issue of the appointment of the Chief Scientist. I am not sure who best to address this to—I assume it is Mr Cook?

**Mr Cook**—Yes, Senator.

**Senator STOTT DESPOJA**—I have read the brief history you provided in your submission. Why was there a government policy change from having a full-time Chief Scientist to a part-time Chief Scientist?

**Mr Cook**—I do not have personal knowledge of the various considerations which went into that change. However, it was made at around the time the current government came to power and chief scientists since that time have been part time. I presume that people took the view that, given where things had got to, it was no longer necessary to have a full-time chief scientist. There were some other changes made to the structures involved in advising on science and technology around that time; ASTEC was abolished for example. Clearly, ministers took the view that a part-time Chief Scientist could adequately provide the sort of advice that the government was looking for.

**Senator STOTT DESPOJA**—Then looking at the rationale for the part-time appointment and using the two examples, are you aware of how each of the candidates were approached when being offered the job of chief scientist? Were they provided with the option of working part time or full time?

**Mr Cook**—My understanding of the selection process conducted by Senator Minchin at the time was that they were approached on the basis of a part-time appointment.

**Senator STOTT DESPOJA**—Were they provided with the option of more than one possible income? Was it readily acknowledged that they would be in receipt of an income from

government but that they would continue their work in an industry or with directorships elsewhere?

**Mr Cook**—That is my understanding. It was quite apparent at the time.

**Senator STOTT DESPOJA**—Clearly, this did not depend on whether or not they took the job full time or part time, if it were offered on the basis of a part-time employment?

**Mr Cook**—That is my understanding. As I said, I was not involved at the time. I will undertake some further inquiries after the hearings and double-check that. It is certainly my understanding.

**Senator STOTT DESPOJA**—I have a few more questions that you may want to check, so I understand if at any stage you want to take them on notice. What was the departmental appropriation for the position of the Chief Scientist in 1996 after Professor Pitman left his post?

**Mr Cook**—I do not know and I am not sure if we could find out. We could certainly ask. In 1996, the position would have been in the Department of Industry. We can find out. Whether it was recorded and accounted for as a separate cost centre, I am not sure. We will take that on notice.

**Senator STOTT DESPOJA**—Can you either tell me now or also take on notice how much Professor Stocker was offered for his role as the Chief Scientist? Am I right in thinking it was \$40,000?

**Mr Cook**—I do not know the answer to that. We will need to take that on notice.

**Senator STOTT DESPOJA**—Specific to that appointment, I think it may be covered by your earlier answer, but I am curious as to the reason that Professor Stocker was appointed as Chief Scientist in a part-time capacity. Did this decision to appoint to part-time positions merely reflect this change of government and thus change of philosophy or was he one of the reasons that the decision was made to appoint a part-time Chief Scientist?

**Mr Cook**—I do not know the detail. We will see what else we can find out.

**Mr Walters**—Could I just offer one comment. When looking at the full-time, part-time issue, it is worth bearing in mind the issue of the functions to be performed. As somebody who worked with Professor Pitman on science issues back in the early nineties, I know that when the office was established in the Department of the Prime Minister and Cabinet it had a number of executive functions which it lost later on. So there is a decision to be made about the scope of the job in addition to whether it is full-time or part-time. Not being party to the decisions at the time, I am not sure how that played out.

**CHAIR**—What executive functions were lost?

**Mr Walters**—The CRC program was part of the chief scientist division in Prime Minister and Cabinet at that time, so there was, for example, an executive responsibility there. You can also look at the issue of the UK. That came up this morning and one or two of your witnesses

mentioned Sir David King, who is a part-time appointee. He told me earlier this year he works four days a week for the department and two days for Cambridge University, where he is still Professor of Chemistry. That makes a six-day week, which is not very attractive; but that is what he does. He has a number of executive responsibilities. He is responsible for the international operations, for example, of the department in respect of science and for a number of other program areas. I believe he also has general oversight of the research council scene, which is really quite complex in the UK. The only point I am trying to make is that one of the considerations taken into account is the scope of the responsibilities, and I think that may have played a part at that time.

**CHAIR**—That is an administrative matter within departmental divisions.

**Mr Walters**—I think it is a workload matter.

**CHAIR**—But that is all it is. It is no reason not to have a full-time or a part-time position.

**Mr Walters**—No, but the scope of the responsibilities is something that you need to consider when you are deciding on how many days a week you need to devote to the job. It is as simple as that.

**Senator STOTT DESPOJA**—I would like to tackle the issue of scope. You mentioned that the position of the UK chief scientific adviser is part-time. Has that always been a part-time position in the United Kingdom?

**Mr Walters**—I really do not know. That position goes back a long time. I think it goes back 30-odd years, so I would not like to say.

**Senator STOTT DESPOJA**—Why do you think the United States and Canada, for example, have full-time chief scientists? Is the department aware of those overseas examples?

**Mr Walters**—I think the chief scientist in the USA has a rather special position in coordinating scientific matters within the White House—if that is the officer you have mind. There are chief scientists in certain of the portfolio departments too, so I would not like to draw a comparison. I would simply make the point that when you look at the design of these jobs and the full-time, part-time issue, the loading of the functions is something to be taken account.

**Senator STOTT DESPOJA**—That is why I am curious to know whether or not the government or various departments—I acknowledge that more than one department has been involved in this process—consider this information and domestic examples when deciding to make the position full-time. For example, is the department aware of the rationale in Victoria for four part-time chief scientists?

**Mr Walters**—Much as we would like to be consulted about the appointment of senior officials in Victoria, I am afraid that we are not generally. So I do not think we could comment on that.

**Senator STOTT DESPOJA**—I understand that you are not necessarily privy to their decision-making and their rationale. I am wondering whether the government at any stage

approached them about it, drew on their advice or took into account other interstate or overseas examples when making what seems to be—and no doubt the committee considers it as a consequence of this inquiry—a serious decision to change the position of chief scientist from a full-time to a part-time one.

**Mr Cook**—We will see what else we can find to shed some light on that. I am not aware of that. I just simply make the point that, in respect of state governments in Australia, they are following the Commonwealth in establishing chief scientist positions and taking different models, depending on how they see the best value being provided.

**Senator STOTT DESPOJA**—On page 2 of your submission, you state:

Dr Batterham's continuing involvement in industry while he is Chief Scientist, gives his advice to Government greater currency and relevance.

I am wondering how Dr Batterham's involvement with one company in industry gives his advice 'greater currency and relevance'.

**Mr Cook**—We did not say his involvement in Rio Tinto specifically. By using those words we were implying that his engagement with industry, as a result of his background and current employment in Rio Tinto, gives him access to a very broad range of industry opinion across a whole number of sectors which an academic, for example, would not necessarily have. He is very cognisant of industry thinking on a whole range of issues across a broad range of industry sectors because of the normal sort of contact he has with people.

**Senator STOTT DESPOJA**—You also note in your submission—in fact, immediately after that:

The Chief Scientist is held in high regard by the science, research and business communities.

I think the committee would acknowledge that based on the content of many of the submissions. I just wonder if the department can identify those communities or the groups in those communities that do not hold him in high regard. Is that something you would be aware of if it were the case?

**Mr Cook**—I guess I read the papers! That is really the only feedback I have ever seen of people having negative views about the Chief Scientist, and most of that has been from people who appear to have a view that he is perhaps not as sympathetic to renewable energy as he might be.

**Senator STOTT DESPOJA**—I do not know if you heard the previous evidence—and I apologise for being, as Dr Batterham said, a 'disembodied' voice today—but I asked about informal advice and the Chief Scientist's ability to provide informal advice. You state in your submission that the Chief Scientist may 'offer advice on his own initiative' and that this may be 'informal'. Can you define what 'informal' means in this context?

**Mr Cook**—What we had in mind there was that some of the key pieces of advice that the Chief Scientist provides come through quite a structured process of consultation—indeed

sometimes public consultation—engaging with a broad range of stakeholders and finishing up in a formal report, document or written piece of advice. In addition to that, he can often be asked for his view on things in quite informal ways where there is not necessarily any record taken of that discussion. At one extreme he might bump into a minister in the corridors of Parliament House and they might ask him his view about whatever is on their mind at the time. In the reverse situation, in the course of his work the Chief Scientist will come up against issues and may bump into a minister in the corridors of Parliament House and say, ‘I’ve been thinking about this particular issue. I think it is something we should give a bit more attention to’—or whatever it is. Again, there would not be any record kept of that discussion. So the informal stuff is more the ad hoc discussions that the Chief Scientist has, and he has a huge number of them.

**Senator STOTT DESPOJA**—Indeed, and when I asked him a similar question he answered it similarly and also mentioned that records were not necessarily kept of that kind of formal advice—there may be in some circumstances but in others there may not. I acknowledge in situations which you have described—maybe a chat in a corridor—it is not always easy to keep a record. But I am curious as to how you would expect conflicts of interest to be dealt with if they arise during the provision or discussion of informal advice or communications with the Chief Scientist. Is that an issue? He thought not: he thought that roles were distinctive and usually clearly defined before he engaged in that kind of informal discussion or provision of information. Do you think it is possible for conflicts of interest to arise in those circumstances?

**Mr Cook**—My experience, having seen Dr Batterham operate in a range of situations, is that he is always clear about what hat he is wearing in any particular conversation. He would be clear, I am sure, in those informal meetings with ministers as to what hat he was wearing when they were having that discussion. In supporting the Chief Scientist, we go to some lengths in the department to try to ensure that those separations are crystal clear. I heard Dr Batterham comment this morning that, if a request comes in for a meeting, briefing or whatever and it is not clear whether someone wants to talk to him as Chief Technologist—in which case it is no business of the department—or as Chief Scientist, we clarify that. He is clear with people when he is speaking to them and we are clear through our secretariat function about what role he is performing. I have no reason to doubt that he carries those principles forward in any conversation he has.

**Senator STOTT DESPOJA**—If the Chief Scientist were a statutory appointment, as some people have suggested—I note that FASTS did so in their submission this morning—how would that affect the relationship of the Chief Scientist with the department?

**Mr Cook**—I am not sure. It would depend very much on what the scope of his function then was. At the moment the relationship between the Chief Scientist and the department is one where we provide him with secretariat support and where we support a number of the key whole-of-government activities in which he is engaged, as I explained in my opening statement. If he were a statutory office holder then that would clearly change the relationship between the Chief Scientist, ministers, the parliament and the department. It would depend exactly on how the legislation was framed as to how that might work.

**Senator STOTT DESPOJA**—I know this is probably contingent upon the issue of scope and responsibilities but would the department consider estimating how much it would cost for a full-time Chief Scientist?

**Mr Cook**—It is hard for me to guess. However, I will give you an off-the-cuff reaction if you will treat it as such. It is quite clear that to employ someone of the calibre of Dr Batterham on a full-time basis we would have to pay them much, much more than what we currently pay Dr Batterham. I would estimate that on a pro rata basis it would be at least double what we currently pay because we would have to recruit someone from either an equivalent position in a university, where they would be expecting a salary well in excess of what Dr Batterham is paid by us, or from private industry, where the same sort of situation would apply. It could even be a very senior person from CSIRO.

**CHAIR**—If you pay \$98,000 and double that—

**Mr Cook**—I mean \$98,000 divided by two, multiplied by five days and doubled.

**Senator BROWN**—Five hundred thousand.

**Mr Cook**—Yes, that would be my guess. To get someone of his calibre you would be looking at a package of that size.

**CHAIR**—Within the Commonwealth Public Service, how many people work for \$500,000?

**Mr Cook**—Not that many. However, as you well know, there are people in positions in the Public Service who are paid well and truly above what secretaries are paid because of their unique skills.

**CHAIR**—You are saying it is \$500,000?

**Mr Cook**—That is my off-the-cuff reaction. You have to get someone who is prepared to step out of their career and take the role as Chief Scientist on a full-time basis. They have to be compensated for that.

**Senator STOTT DESPOJA**—Are there not other rewards for that kind of high-profile, distinguished Public Service position? I know I asked the question in pecuniary terms but I am just wondering if we recognise that when people are offered positions—whether it is in a department because they have specific skills or they are government appointments for the same reason—they understand that there is an element of public service and there is not always the kind of financial recompense that they would want.

**Mr Cook**—I do not disagree with that. Government unashamedly utilises people based on that very principle. Indeed, Dr Batterham is doing this job on the basis of that principle.

**CHAIR**—Do you think he should be paid twice the Prime Minister's salary?

**Mr Cook**—I am saying that I think we get extremely good value from the Chief Scientist and he would earn far more doing other things.

**CHAIR**—I am glad that you are not negotiating for the Commonwealth, that is all.

**Mr Cook**—Of course, the reason that many senior public servants remain in the Public Service and do not do other things is for that same reason. It depends where a person is in their career. Someone at the end of their career will often come and do work for government on the basis of wanting to give something back to society and they are looking to do something for the nation. For a lot of people who serve on our committees during the course of their careers, in a lesser way than Dr Batterham, it is based on the same principle. If we look at the CRC Committee, the sitting fees we pay those folk certainly do not go anywhere near what they earn from their day jobs. Nevertheless, they come along and do it because of their desire to assist us as a country. But you have to be realistic about the extent to which somebody is prepared to do that in this day and age when we are looking at a global market, not just a domestic market.

**Mr Walters**—You need to factor in an increase in support costs too. There was some discussion this morning about this, and we have a little more on the breakdown of that. Of the \$125,000 that was discussed this morning, in fact \$22,000 of that goes to reimburse Rio Tinto for the costs of the personal assistant in Melbourne who looks after his diary, makes travel bookings and so on and so forth. That is done on the basis of two-fifths of the cost of a personal assistant. Obviously, that is something which you would need to scale up in terms of personal support.

**CHAIR**—What do the other 10 people in his office do?

**Mr Walters**—The 10 people in the office of the Chief Scientist are in Canberra and they belong to my divisional group. Only one of those works full-time—a policy officer who works with the Chief Scientist. A lot of the administrative assistance comes out of the Rio Tinto office and that is what we reimburse the \$20,000 for. If you had an officer of that status—full-time and working from Canberra all the time—then you would expect those office support costs to rise. The rest of those officers—I think we went through this last time at estimates, Senator—also support PMSEIC. A great bulk of their work is around supporting PMSEIC working groups, doing research, putting papers together and organising the meetings of the PMSEIC working groups. They also support the CCST, which is the committee which brings together all the Commonwealth science agencies for discussions, and they organise their agendas and so on and so forth. Those officers do provide support from time to time for the Chief Scientist, mainly of a policy-making nature. A great deal of their work is devoted to PMSEIC and CCST.

**Senator BROWN**—The Chief Scientist has an office in the Rio Tinto headquarters in Melbourne, and is designated as such. What is the rental that the government pays for that office?

**Mr Walters**—Zero.

**Senator BROWN**—Do you know if Rio Tinto declares the gift of that office to the Chief Scientist?

**Mr Walters**—I am not sure whether it is regarded as a gift or what they do about that. Are you talking in terms of taxation?

**Senator BROWN**—No, I am talking about the contribution to the political establishment or, indeed, in terms of taxation. There has to be a value for the office and its rental.



**Senator JOHNSTON**—Where is the obligation to report?

**Senator BROWN**—This is what we are to discover. Is there an obligation to report that rental?

**Mr Walters**—There is no obligation on us. I imagine if it is a taxation matter for Rio Tinto, then it might be a confidential matter between them and the Australian Taxation Office. Certainly, so far as we are concerned, the only contribution that we pay is two-fifths of the salary of the personal assistant—around \$22,000 a year.

**Senator BROWN**—How do you feel about the situation that Rio Tinto is effectively gifting the Office of the Chief Scientist in Melbourne to the government?

**Mr Walters**—I am quite glad we do not get invoiced for it.

**Senator BROWN**—Don't you think that is a bad look?

**Mr Walters**—Why would that be?

**Senator BROWN**—Because here we have a company with a very great interest in outcomes from government decision making gifting the Chief Scientist's office in Melbourne free of charge.

**Mr Walters**—You could argue, by the same token, that they are making available two days a week the Chief Scientist's time.

**Senator BROWN**—No, I do not accept that argument. That was a decision made by the Chief Scientist, not by Rio Tinto. I am very concerned that we have the Chief Scientist's office in Melbourne being given gratis to the government by Rio Tinto, which has a very clear interest in government decision making.

**Mr Cook**—There is no extra expense for Rio Tinto in respect of the office. The Chief Scientist is there anyhow as the chief technologist.

**Senator BROWN**—I do not accept that, Mr Cook. I could ask who paid for the sign that indicates that the Chief Scientist has his office there. Did the government arrange for that?

**Mr Kriz**—Whatever the rental of that office is—two-fifths of the office in High Street in Melbourne or whatever—surely the proposition is not put that that would affect the government of Australia in terms of it somehow being swayed towards Rio Tinto because it is getting a gift of what in the scheme of things is an incredibly minuscule amount of money.

**Senator BROWN**—I am putting that to you, Mr Kriz.

**Mr Kriz**—I have a far greater faith in the Australian government than you have.

**Senator BROWN**—What do you think the Australian government would think if he moved down the road to the premises of the wilderness society or the Builders Labourers Federation and set up office there? How do you think that would go?

**Mr Walters**—I think it is the case—

**Senator BROWN**—I want Mr Kriz to answer that question.

**Mr Kriz**—How would that go?

**Senator BROWN**—Yes.

**Mr Kriz**—Hypothetically, it might work exactly the same way. I do not know. I am just responding to what is actually happening, rather than what could hypothetically happen.

**Senator BROWN**—There would be an uproar.

**Mr Walters**—We have a lot of people working with our committees, like the ARC and the CRC committees, and they devote some of their time to them and they do some of that work from their own offices, therefore the organisations which they come from are implicitly donating a benefit right across the board. That comes from all manner of organisations—companies, universities and so on. That is just something that happens, and we would not expect to be invoiced for that.

**Senator BROWN**—You are invoiced for the personal assistant from Rio Tinto. You should be invoiced for the office. I would ask you to look at that matter, because we heard from the Chief Scientist himself this morning that he takes appointments as the Chief Scientist at that office. I wonder what people think when they are going into it if they know it is paid for by Rio Tinto.

**Mr Kriz**—Those two propositions are perfectly reconcilable. The person who is supporting him and for whom we pay would not otherwise have to be there and would not have to be employed. The office itself would not disappear if he were not there; it would still be physically there so, as Mr Cook has said, the company itself is not out of pocket as a result of that.

**Senator BROWN**—That is a rationalisation, Mr Kriz, and I for one do not accept it.

**Mr Kriz**—It is a rational point.

**Senator BROWN**—If you take the \$22,000 out of the \$125,000, that leaves \$100,000 a year for the Chief Scientist to cover travel costs and travel allowance. That comes to \$1,000 a day.

**Mr Walters**—Would you like a breakdown?

**Senator BROWN**—Is my breakdown wrong?

**Mr Walters**—It is about \$20,000 for Commonwealth car transport; \$300 for conference registrations; as I said, about \$22,000 for the personal assistant; \$43,000 for airfares, because there is a great deal of travel involved; and \$13,600 for travel allowance, which is what he is

reimbursed on Public Service rates for overnight stays, hotels and so on. Twenty thousand dollars went to his deputy, who had the formal title of Head of the Office of the Chief Scientist and is no longer performing that function. That is Dr Vijoleta Braach-Maksvytis, who is paid a per diem. The final item is \$12.99 for stationery.

**Senator BROWN**—So it is \$1,000 a day.

**Mr Cook**—That is the cost. As I said, \$20,000 went to Vijoleta while she was assisting the Chief Scientist.

**Mr Walters**—Do you mean that on the basis of two days a week?

**Senator BROWN**—Yes, I do. That is what the Chief Scientist is appointed for. Does the Office of the Chief Scientist assist the PMSEIC working groups?

**Mr Cook**—Yes. Each time a working group is established, the department provides someone to act as secretariat for them and we approach the relevant policy department. For example, if they are doing something to do with agriculture, we would go to the Department of Agriculture, Fisheries and Forestry and ask them to provide a person who can also assist the committee with any policy related research or work that needs to be done to support their activities.

**Senator BROWN**—So the Chief Scientist's office is involved in that process?

**Mr Cook**—By providing a secretariat, yes.

**Senator BROWN**—What role did it have specifically in that *Beyond Kyoto* working group that we have been asking about today?

**Mr Cook**—It is the same arrangement. We had a person who was providing secretariat support to the working group, and I believe someone from the Department of Industry, Tourism and Resources would have also been made available to provide policy assistance.

**Senator BROWN**—How were the members of that working group selected—do you know?

**Mr Cook**—The selection process is basically that there are discussions between the Chief Scientist and the standing committee of PMSEIC about topics that might be proposed for discussion. Those topics are cleared through ministers and the Prime Minister's office, including the terms of reference and possible working group members, and then a number of people are approached who are regarded as having expertise in the area. Normally we try to keep the working groups down to eight or 10 people. They are inevitably chaired by one of the members of PMSEIC, and then those working groups get on with their job.

**Senator BROWN**—Who recommended that Mr David Cain from Rio Tinto be part of that group?

**Mr Cook**—I do not know specifically the answer to that.

**Senator BROWN**—Can you find out?

**Mr Cook**—Yes, we will check that.

**Senator BROWN**—Thank you. What do you think of the process whereby he then said that he would get Rio Tinto to pay for a consultancy from Roam—Roam consultants—which would amongst other things be ready at the end of October to allow scenario testing to produce graphs for the report which was going to advise PMSEIC?

**Mr Cook**—We leave it up to the working groups to decide how they wish to operate, and the members of the working groups bring all sorts of materials to the table that they already have knowledge of or may have access to, and I have no particular concerns about that.

**Senator BROWN**—Do you have access to that Roam consultancy?

**Mr Cook**—No.

**Senator BROWN**—Does the government advise on or monitor conflict of interest when it comes up?

**Mr Cook**—Do you mean within the working groups?

**Senator BROWN**—I mean wherever it might occur in these working groups, in the advisory outcomes from those groups or in the CRC selection process.

**Mr Cook**—For the CRC selection process, the process for monitoring conflicts of interest has already been described. How the working groups operate is really up to their chairs. Because PMSEIC is an advisory group and has no decision-making powers and the working groups are simply presenting a report to the members of PMSEIC for further consideration, I do not think the issue of conflict of interest arises too much, but we would expect the chairs to manage that if it did.

**Senator BROWN**—Has the Chief Scientist ever triggered the conflict of interest provisions within his contract?

**Mr Cook**—Do you mean has he not done something because he thought there might be a conflict of interest?

**Senator BROWN**—Has he ever notified you that he was in conflict or would be if he proceeded with a certain endeavour?

**Mr Cook**—We talked about the CRC situation earlier. No, I am not aware of any case where he has notified us of that. Part of the screening process the department undertake through our secretariat support is to have an eye for that—if people want him to do things or suggest he do things that we think might lead to some potential conflict of interest, we would draw it to his attention and, if he has got any concerns about those issues, we also have a standing arrangement whereby he can consult Mr Kriz.

**Senator BROWN**—Finally, you have got the Chief Scientist, who is Chief Technologist for Rio Tinto, considering applications from Rio Tinto for research and development with,

potentially, multimillion-dollar government funding coming from that, and he is able, under category 2 of the CRC Committee guidelines, to take part in the discussion of those applications. Why do you believe that he should not be in category 3, where he would absent himself when such an application came before the committee? After all, he is the Chief Technologist—he is the head *serang*—at Rio Tinto for its research and development programs. In that sense he has a very direct interest. Don't you think he ought to absent himself from the discussion of those applications which come from people under his aegis?

**Mr Cook**—I am not sure that the last bit is correct. The CRC Committee is a committee which advises the minister, and the department provides a secretariat support to it. I am a member of that committee and the committee often discusses conflict of interest issues if a member's circumstances change or whatever. We do it very formally, including through the selection process.

The committee has for quite some time taken the view that they were prepared to accept the firewall arrangement, which I heard you discuss with Dr Vaughan earlier, as sufficient assurance that Dr Batterham is not personally involved in those CRC applications to enable him to contribute to the discussion but not to the decision-making process.

**Senator BROWN**—He is paid a six-figure sum by the company that is putting forward those applications as their Chief Technologist. Surely that is a direct interest in what the outcomes will be?

**Mr Cook**—I am not sure what he is paid. The Chief Scientist made the statement this morning that his remuneration from Rio in no way depends on his performance as Chief Scientist, so it is hard to see that there is any personal benefit to be gained. As Dr Vaughan mentioned, in the last couple of rounds of CRC applications—and I can recall three cases—Rio was a party and were unsuccessful. So I think the track record shows the committee is operating on a fair and reasonable basis. We also have Mr Kriz sitting in on the meetings as a probity adviser to ensure that nothing untoward occurs.

**Senator BROWN**—That is in the legal sense, but ethically we are in a very different ball game. To help us out there, can you present us with a definition of a 'firewall'?

**Senator JOHNSTON**—It is legal because it is in his contract that he cannot have a conflict of interest. It is a legal matter and Mr Kriz is the one who would overview that.

**Mr Kriz**—I could perhaps assist in outlining the function I perform. I am not part of the science group in the department. In terms of my legal functions in the department, I am not answerable to anybody in the line area for my legal professional work. The buck stops with me in terms of whether the right thing is done or not, and that is pursuant to a statutory authority issued to me by the secretary of the department—by the chief executive officer—under the Financial Management and Accountability Act.

I have been appointed as a probity adviser to this round and was also for the previous round. I perform functions which include looking at the documentation that goes out and the documentation that is used to actually process the stuff that comes into the department and into the committee from the secretariat, which is run out of the department. That includes the issues

of conflict of interest. I provide advice on anything that arises. I attend the meetings of the committee where decisions are made and I can tell you—confirm, in effect, what was said this morning—that in no instance that I observed was any member of the committee, whether it was Dr Batterham or any of the others, overly influential in the particular decision being reached. I did not observe any member of the committee being in a situation where their views were not heard. Indeed, the decisions that have been taken to date in this particular round were consensus based decisions. The committee as a whole—all 13 of them, I think—reached unanimous views in relation to each of the decisions that they made. There is no way that Dr Batterham had any sort of the ethereal or any other influence that was mentioned earlier today.

**Senator BROWN**—I suggest you read Professor Miller's evidence. Have you got a written definition of this firewall?

**Mr Kriz**—What we have is a statement from the company which indicates—

**Senator BROWN**—This is Rio Tinto?

**Mr Kriz**—That is right—the other employer of Dr Batterham. We have a statement from Rio Tinto which indicates that he is not involved in any of the proposals that are put forward where Rio Tinto might be involved in relation to a CRC application. We also have some statements from people within Rio Tinto that go beyond that individual undertaking to again support that.

**Senator BROWN**—And you are happy with an interested party giving you a statement saying, 'We are not interested here. We are satisfied we have got a firewall'? That satisfies you?

**Mr Kriz**—No, I am satisfied with what I have observed. What I have observed is that there was no need for any vote. All 13 people on the committee voted. There was no dissension, no problem and no overbearing role played by any particular member. There was nobody in a situation where they were not heard. Indeed, there were quite strong, unanimous decisions on that. I personally, from my own observations, do not believe that Dr Batterham has any undue influence on anybody—certainly nothing that was explicitly said in the meetings, and these meetings go on for two days.

**Senator BROWN**—He is Chief Scientist of Australia and Chief Technologist of Rio Tinto and he is considering Rio Tinto's application for government money.

**Mr Kriz**—I consider I have a pretty good education. I feel very uneducated in that particular company. There are more PhDs around that table than I have seen in lots of other places.

**Senator BROWN**—I suggest you get their definition of a firewall and look at it carefully.

**Mr Kriz**—Whose?

**Senator BROWN**—Rio Tinto's. You are relying on their word that they have a firewall.

**Mr Kriz**—No, what I was relying on was what I have observed, and what I have observed I have reported on here. It is very clear.

**CHAIR**—Thank you very much, officers, for attending today.

**Committee adjourned at 3.36 p.m.**