



**TRANSCRIPT
OF PROCEEDINGS**

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PRODUCTIVITY COMMISSION

DRAFT REPORT ON ENERGY EFFICIENCY

**DR N. BYRON, Presiding Commissioner
PROF M.C. WOODS, Commissioner**

TRANSCRIPT OF PROCEEDINGS

AT SYDNEY ON TUESDAY, 31 MAY 2005, AT 9.00 AM

Continued from 30/5/05 in Brisbane

DR BYRON: Good morning, ladies and gentleman. Welcome to the public hearings, the Productivity Commission's inquiry into improving energy efficiency, following the release of our draft report in April. My name is Neil Byron. I'm the presiding commissioner for this inquiry, and my fellow commissioner is Mike Woods.

The inquiry began with a reference from the Australian government on 31 August last year, and covers the potential economic and environmental benefits offered by measures to enhance energy efficiency that are cost effective for individual producers and consumers. We're grateful to the many organisations and individuals who have already participated in this inquiry. The purpose of this series of hearings is to facilitate public scrutiny of the commission's work, and to get comment and critical feedback on the draft report. We've already held hearings in Brisbane and, following this hearing today in Sydney, we'll be having other hearings in Canberra on Friday and then Melbourne next Monday, 6 June.

We're working towards completing a final report to be with the Australian government by the end of August, having considered all the evidence presented at the hearings and in submissions, as well as other relevant information. Participants in the inquiry will automatically receive a copy of the final report once it's been released by the government, which may be up to 25 parliamentary sitting days after completion of the inquiry. We like to conduct all our hearings in a reasonably informal manner, but I remind everybody that we are taking a full transcript, and so comments from the floor are not helpful. But at the end of the proceedings each day I provide an opportunity for anyone wishing to make a brief presentation to come forward and do so on the record.

Participants are not required to take an oath, but are required under the Productivity Commission Act to be truthful in their remarks, and participants are perfectly welcome or encouraged to comment on issues raised in other submissions or by other speakers here today. The transcript will be made available to participants for checking and will be available from the commission's web site as soon as possible following the hearings. They can also be purchased using an order form that's available here today. Likewise, the submissions are available on the web site or by the order form.

To comply with the requirements of the Commonwealth occupation health and safety legislation, I have to draw your attention to the fire exits, evacuation procedures and assembly points. Out the corridor, down the way we came, down the stair, past the reception, out the front door into Liverpool Street. Toilets are just at the end of the corridor on the right. Can I ask anybody in the audience with a mobile phone to turn it off or to silent mode. That completes the housekeeping.

I'd now like to welcome Dr George Wilkenfeld from George Wilkenfeld and Associates Pty Ltd. Thank you very much for coming today, Dr Wilkenfeld. If you'd like to take us through the main points in your second submission. I thank you for both of your very detailed submissions. We've read the second one very carefully. Then we'd like to discuss it further with you. Thank you.

DR WILKENFELD: Thank you. Yes, I thank you for the opportunity to speak to my second submission. As the submission says - I mean, I didn't have a chance to spend equal attention, equal time, on the whole of your very voluminous draft report, so I've concentrated on those parts that I think I'm most familiar with, which is the comments and draft recommendations on minimum energy performance standards and energy labelling for appliances. I also have a few things to say in parenthesis on energy performance ratings for buildings. But that's more to correct the record on what was the finding of a report that we did on that.

But first I'd like to, I guess, emphasise the areas of the findings, and the tone of the draft report that I completely agree with, before getting on to the points of possible disagreement and divergence. I also spent some time on the general part of the draft report, which establishes the policy context for the inquiry, and the policy context for energy efficiency and measures or policies as such.

I agree that I don't see any intrinsic or inherent virtue in increasing the technical efficiency of energy conversation. I mean, there's a certain engineering elegance to using physical resources efficiently, but I agree with the commission that the background or the point of having an inquiry such as this is to question whether the economic efficiency or the resource efficiency of delivery of energy services is at the optimum in Australia.

By resource efficiency we include, I think, not only the conventional economic inputs, but also the environmental resources which are used or consumed in the provision of energy services. The one that's obviously drawn greatest attention recently, though by no means the only one, is the emission of greenhouse gasses, which are a by-product of the consumption of energy services, to the extent that energy services still rely largely on fossil fuels. I should also say I see no particular virtue in the use of renewable energy versus fossil, or particular vice in use of fossil energy. I think that the - I agree with the commission's point of view that the aim of energy policy ought to be delivered; energy services with the optimum mix of both energy forms, physical inputs, end-use devices and supply devices.

If the pricing of energy services were efficient and cost reflective then we wouldn't, I think, need to look at environmental issues separately, because they'll be priced into the energy price. Now patently this is not so. So in Australia at the moment it's the reality of life we've got imperfect energy pricing, and so we've got

parallel - hopefully not divergent, but certainly parallel policies looking at optimising the energy pricing or the allocation of conventional economic resources within energy, and a parallel policy of reducing environmental impact.

Up until now I think that the two policies have not clashed, but I can see, as energy efficiency policies become more stringent, there is a possibility of a clash incurring in the future. So that's where I'd like to concentrate my presentation. But I think that when the application of these general principles in the draft report, with which I agree, have not been consistently or successfully applied in the analysis of managing minimum energy performance standards - or energy labelling is a slightly different issue.

I think that the minimum energy performance standards have been driven - and this is on the record, and is clearly stated in the preamble of every regulation impacts done on elementary performance standards - they are driven by environmental policy. The council Australian governments' National Greenhouse Strategy of 1998, and before that the NGS of 1992, is the policy bases of minimum energy performance standards. The objective of applying energy performance standards has been to address environmental issues, but - or the environmental - the parallel in the environmental objectives, but to do so in a way that doesn't reduce or increase the economic cost of providing energy services, and I believe that these parallel objectives have in the past been achieved.

We have been able to - or the program has been shown to reduce greenhouse gas emissions below where they would otherwise have been, while at the same time imposing no net cost, and I would say imposing or achieving a net economic benefit for the community or end use or consumers effected by minimum energy performance standards. So minimum energy performance standards takes its policy basis from environmental policy, but at this stage there has been no negative impact on economic efficiency.

There are - now, I'll get to some detailed areas where I think that the draft findings and draft recommendations in the draft report are, I think - well, I'll disagree with them, and I'll take us to a number of points in detail. First of all, the draft policy states that the impacts of minimum energy performance standards have been somehow overstated, and in some places it actually said that. Certainly energy efficiency has improved in the product areas targeted by minimum entry performance standards, and the implication is that they would have improved anyway.

We don't disagree with that, and a careful reading of our regulation impact statements, and I think those done by other consultants as well, on minimum energy performance standards very carefully constructs a business as usual case, which is a projection of what is likely to happen given the dynamics of the market without the

application of minimum energy performance standard or the other policy options that are examined. I carefully looked back at the so-called base-line assumptions, and our regulation impact statements, and I've tabulated them in our second submission. In most cases we have assumed that energy efficiency would in any case increase.

So we have projected or analysed our impacts on the basis that minimum performance standards would accelerate an underlying increase in energy efficiency. So we have never attributed all of the impacts of our - or projected impacts of our programs to the program itself. We have compared them with an underlying dynamic baseline. So to that extent I believe we've accounted for, correctly accounted for, the underlying expected improvements in energy efficiency, and we've only ascribed the impacts to the additional improvements that would be brought about by minimum performance standards.

We've not only done this in prospect, we've actually done this in retrospect, at least. In one study we've gone back over our previous projections and compared them to the actual collected data on energy efficiency trends. Clearly, you can only collect data on what has occurred, which is after the policy has taken effect. But, nevertheless, if the projection of what - or if the data of what has occurred corresponds pretty well with the initial projection, then I think it's a reasonable assumption that the so-called counter-factual - that is, what would have occurred without the measure - might also have been a reasonably accurate projection.

But that's the best kind of analysis that can be done for any kind of post-measure impact, and we have done it. We have applied it retrospectively, and I've detailed the findings of a particular paper on that issue in our second draft submission, and looking at seven detailed appliance areas, or looking in detail at seven appliance areas where we were able to analyse, of course, the data supporting the analysis. We found that for, I think, from memory, three appliance areas, three kinds of refrigerators, our projections proved pretty accurate 10 years after the fact, looking back at them. The two of them we under projected, the improvement in efficiency of two of them, we over projected the improvement. So on balance I think we did pretty well. I'd also say that this degree of post-measure impact analysis is more than I have seen for most government programs.

So, coming back to the implication in the draft statement, or the draft report, that we've overstated the impact of minimum performance standards, I would counter that by saying I don't believe we have, and the evidence that we bring to bear to support that is actually considerably better than for most government programs. So I think that's an incorrect statement.

I also say it - moving from minimum performance standards to energy labelling - the draft report also questions the effectiveness of energy labelling. Should I stop

for - or just keep going? All right. The draft report also implies that the effectiveness of energy labelling has been overstated, because energy - because energy efficiency measures are not the first criterion in consumer energy choice. We fully agree with that, but we disagree with the fact that this demonstrates an ineffectiveness of energy labelling.

Before energy labelling was introduced consumer surveys showed that people buying white goods, with no information about energy efficiency, characteristically placed resource efficiency questions - well, they couldn't actually value the energy label, because it was not in existence, but there was sufficient questioning to identify that resource issues came about ninth or 10th in the priorities of factors that consumers would use in purchasing appliances.

After 12 or 13 years of energy labelling, the ABS determined that a good energy rating was the second most nominated factor in the purchase of an appliance. I think that points to a phenomenal success of energy labelling. I'd also say that this degree of success could not have been achieved had not energy labelling been mandatory, comprehensive, and it could not have been mandatory or comprehensive or frequently updated or assured of its integrity, which also helps its consumer acceptance, none of the factors for its success would have been present had it been run by anybody else but government.

So I would say that at one stage the draft report concludes erroneously, I think, that because there are other labelling programs that are not run by government that those are equally effective, which they are not, and in some cases the conclusion that these are non-governments is actually incorrect, because any - an analysis of the background of this program indicates that they were sponsored by government, they are still supported in some cases by government, and they would not - they actually build on existing government programs. So the findings, I think, regarding energy labelling are also not entirely accurate in that it under represents or under characterises the actual success of labelling, and it also fails to recognise that the factors in those success are precisely the fact that it's mandatory and sponsored by government.

So moving on. Another important area where I would disagree with the approach taken in the draft report is to question the validity of minimum performance standards as a program, because not everybody whose choices are constrained by the instances of minimum performance standards is necessarily a winner. We have no disagreement with that. We've never hidden that. We work with the best data that we can on purchase patterns and on energy use patterns, and at this stage in Australia the best data tend to be averages.

In the United States there are excellent data accumulated over time on

matching energy use to household structure and household income. That data set doesn't yet exist in Australia, but we have recognised the value of developing this so we can actually better analyse distributional issues.

That said, we clearly acknowledge that there will be some losers if low-efficient, very low-cost products are withdrawn from the market. But we are confident that on average, on the average consumption bought by the average - for products purchased and used by the average household, that household will be better off, because any projected reduction in choice and/or increase in average produce price will be greatly overcompensated by the discount in their present value of the energy savings. We would like to apply, and we hope to apply in future, as we get better data a better analysis of distributional issues - but even if we - or once we better identify the segment of consumers that may be made worse off by the imposition of a particular level of MEPS, we don't believe that that's necessarily a make-or-break criterion for the application of MEPS, as it is not in the other area of public policy.

We don't see any other public policy analysis, and we certainly don't see in the COAG guidelines and regulation impact statements the obligation to ensure that any policy put up to ministers is a no-losers policy. So we hope to improve our information about distributional issues, but we actually don't necessarily see that that's an essential test under the COAG guidelines, and I think there's an implication running through the draft report that it is, which I think should be corrected.

Moving on to discount rates, we've had considerable discussion over the years about the appropriate discount rates to apply in our analyses of minimum energy performance standards. We note the discussion in the draft report about the range of subject at discount rates which consumers use when they purchase products. Yes, we quite agree that some segments of consumers apply very high discount rates in their valuation of expected future energy savings. In fact some apply such a high discount rate that they don't take into account future savings at all and they are driven solely by subverse price even if they don't energy label.

We don't take issue with that particular finding but on the other hand there are other groups of consumers who employ much lower discount rates than one would expect to be cost effective for them. We actually have data on this. For example, I've made reference to it in the submission that dishwasher users or purchasers of dishwashers apply extremely low discount rates and typically purchase - those that notice the energy label will shift their purchase preference far in excess of what would be cost effective for them solely if they made the decision based on the value of future energy savings.

So there is a very wide range of subjective discount rates used by people who make

conscious decisions about their energy purchases or their product purchases. But I don't believe that any of this is relevant to the discount rate that ought to be used in analysing minimum performance standards as a policy.

For one, minimum performance standards don't require conscious decision-making on the part of consumers. In effect, the decision is made by government on the appropriate value of resource investments made into energy efficiency on behalf of consumers so the subjective discount rates don't actually come into or should not colour discount rates used in public policy making. The other point is that minimum performance standards are a direct substitute for other means of providing energy services. I think there are three main options for accommodating continuing expected growth in demand for energy services and there's no reason to doubt that the demand for energy services will continue because demand for energy services continued without break or has grown without break for as long as we have records, over the last hundred years certainly, and it's projected to keep increasing.

So how do we accommodate the expected continuing growth in demand for energy services? I think there are only three options. One is increasing supply, one is increasing the efficiency of production of the existing supply infrastructure and the third is increasing the efficiency with which the energy is converted at the point of use. I mean, those are the three main substitutable means of accommodating a demand for growth in energy services. They are directly substitutable and can be analysed in a substitutable way if the risk profile is equivalent. Now, I would say that minimum energy performance standards is a program that delivers reductions in energy consumption in as risk free manner and possibly in a lower risk manner than the expansion of supply.

For one, we have shown, I think, and the amount of analysis accumulated over the years has indicated, that the outcomes in Minimum Performance Standards can be projected and predicted with a high degree of certainty. Secondly, the savings accumulate progressively over time as appliances are replaced and new appliances are purchased so the investment as it were, is much less lumpy than a supply investment. So it actually reduces the risk profile in that respect. And thirdly, it has no carbon risk. So arguably, minimum energy performance standards is a directly substitutable means of accommodating growth and demand from energy services, is equivalent to or less risky and therefore the same discount rates ought to be applied to it as for any other investments in capital expenditure on power stations or on increasing the energy efficiency of power stations.

So the result of all that, or our conclusions from all that, is that the appropriate discount rate to apply is not a variable subjective discount rate that's drawn from consumer purchase preferences but the same discount rate as ought to be used for

capital investments. My quick reading of the general treasury notes fettering around the state as at the moment, the discount rate is 5 to 7 per cent. If we apply some reasonable risk premium for saying, okay, well our predictions may not be that accurate, then applying a 10 per cent discount rate is, I think, still erring on the conservative side. I think that the 10 per cent discount rates that we've standardised in regulation impact statements is entirely appropriate.

Lastly, moving onto the draft recommendations regarding minimum energy performance standards in the draft report. The way in which the draft recommendation 7.1 is framed, I think has a number of unfortunate connotations. The first is implying that those programs - for example, voluntary labelling, mandatory labelling, voluntary standards - if such a thing could be made effective, which we have argued it could not - and mandatory standards - are all strict alternatives.

We don't believe that's the case and in all our regulation impact statements, we've usually analysed an interactive basket of measures which could be applied to a particular energy market. Each of those on a case-by-case basis, analysing the dynamics of that particular energy market, in some cases different segments of the market could be addressed by Minimum Performance Standards, where other segments of an energy market could be addressed more effectively and cost effectively by information.

In many cases the infrastructure for all of these programs is identical, that is, the administrative infrastructure needs to contain the same elements, which is to have some form of register of energy performance of all products, to ensure that that register is comprehensive, which means making at least some mandatory requirement to register, to have a common test, to develop the standards to support that common test so the infrastructure to support the whole range of programs tends to be the same. Once that infrastructure is established, the marginal cost of using the information or applying the information in different ways tends to be very small. So usually it is worthwhile to look at a basket of different ways in which the information one has collected can be applied so the different approaches are not mutually exclusive but quite often complementary.

So the policy aim is to look for the optimum basket of options rather than the optimum alternative option. That's one point on which the framing of the draft recommendations on MEPS, I believe possibly is - I would disagree with it. There's also indication that minimum energy performance standards applied up to the present, that the application so far has been in some measure, inconsistent with the COAG guidelines and therefore the analysis of them has been inadequate or deficient in some respect. That could be an implication rather than - I don't believe the statement is there but I think it would be useful for the final report to recognise that

the 14 regulation impact statements so far accepted by the Office of Regulation Review have been certified to be consistent with the COAG guidelines.

If the finding of the inquiry is that in some ways these regulation impact statements have been inadequate and I think the implication is two-fold. First, it implies that the COAG guidelines are in some ways inadequate and if that's so then I think it would be useful for the inquiry to identify and respect the COAG guidelines are inadequate and perhaps suggest specific ways in which they could be changed. But I would say that if that is the case then any change in the guidelines would apply clearly not just to MEPS but to any other COAG measure, but I don't believe that they are inadequate and I believe that all MEPS analyses so far have been conducted to the guidelines that have been correctly certified by the office of regulation review as meeting the guidelines.

There's also some more technical inconsistencies in the way the guidelines are framed. Several technical inadequacies in the way the recommendations have been framed in terms of the preferred ranking of different policy options within MEPS - in several places there is an implication that there is a statement that the preferred option would be the most cost-effective option. The COAG guidelines actually state that when a range of options is being analysed, provided that all options meet a cost-effectiveness hurdle, that is benefit cost ratio greater than one, then the preferred option is the one with the greatest net benefit. So that is actually a technical inconsistency with COAG guidelines in the way that the recommendations are framed.

I think that brings me to the end of my summary of our second submission. I think I've expanded the points I've made but finally I'd just like to - I said I wouldn't stray outside the area of minimum energy performance standards, but I would just make one point in relation to - in the discussion about house energy ratings, particularly in relation to the ACT Home Energy Ratings Scheme, I agree that it's a much more problematic area than the one of appliance ratings or appliance standards, because although I'd have a reasonable degree of confidence in the accumulated information and predictability on user behaviour with regard to appliances, I agree that user behaviour with regard to energy performance of buildings is much more problem and is much more difficult to predict. So I agree that there are greater difficulties with predicting the impact of measures, such as home energy ratings, for existing buildings.

Nevertheless there is a reference to a report of ours on the Act Home Energy Rating Scheme which actually states in the text that we assumed at the outset, when undertaking our analysis, that the scheme was effective and actually that was so at odds with my recollection of our report that I actually went back to dust off the text - this is about 1996 - and it's actually an incorrect statement. So this gives me some

concern that if the draft report actually misstates the findings of a report with which I'm quite familiar, where there's - I think it would be beneficial to check a range of statements in this draft report, including some unquestioned reporting of statements by others. So I just leave that - I'm happy to answer questions on that issue.

In summary, on the area minimum energy performance standards, I do take serious issue with some of the findings and the draft recommendations in the draft report. Thank you.

DR BYRON: Thank you very much for the very constructive feedback. And the reason we have a draft report in these sorts of hearing process is to get precisely that sort of feedback and if we have misquoted or misrepresented or inaccurately recorded or misunderstood, we will definitely go back and check all those things. Mike, did you want to - - -

PROF WOODS: We read through your submission with interest. The tone of it, I think, is probably set by the start of your submission to us, which says under the heading of General, that the draft report states that this isn't an inquiry into global climate change et cetera. Then you say this sits oddly with the terms of reference which state inter alia that the commission is to examine and report on the economic and environmental potential offered by energy efficiency improvements.

I think the fact that you stopped that quote at that point reflects the approach you've taken in building on this second submission, because in fact, if you go to the terms of reference themselves, they proceed with what are in fact the most crucial words in the whole of the terms of reference, which are, "Cost effective for individual producers and consumers."

Now, I don't understand why you left those words off. I understand why the AGO would prefer that they didn't exist, but they do exist and they are the central lens with which this whole inquiry is conducted. It's not an inquiry into greenhouse. It's an inquiry which looks at improvements which are cost effective for individual producers and consumers. Was there a particular reason for you omitting those words?

DR WILKENFELD: Well, no, I didn't mean to misrepresent the terms of reference.

PROF WOODS: It's just that they're the crucial words, so I'm surprised that they were left off.

DR WILKENFELD: No, I'm happy to address the statement as a whole, but I believe that - okay, the way that - I mean, this is expanded also in the second

submission. The way in which the logic for the analysis of minimum energy performance standards has been is that the main objective of applying them is an environmental objective, is the greenhouse objective.

In a way, the greenhouse objective has been applied incompletely, because, for various reasons we have not been able to agree on a carbon price. So therefore, because we're not able to, it's been a very curious - well, we have not been able to agree on a carbon price for reasons that you yourself have, or the inquiry itself has acknowledged. Because of the controversy, inevitable controversy and difficulty in agreeing carbon price, we have sidestepped the issue by saying, "Okay, we can quantify the greenhouse impacts," but then the measure has to be run through the filter of being cost-effective for producers and consumers.

I mean, that, I think, is a shorthand: the test of cost-effectiveness for consumers has certainly been the main test that we've applied in the financial, I suppose, analysis in minimum performance standards. So having satisfied ourselves, and I think every MEPS to greater or lesser extent - and I think some have deficiencies - but I think they have, we have satisfied ourselves by conducting the RIS, that is certainly cost-effective for consumers. It has passed that filter and therefore it throws the focus back onto its environmental value. So I don't mean to cut the second half of the terms - that statement in terms of reference out of the analysis, but I, you know, almost as the statement is read, that is the basis in which we conduct the regulation impact statement analysis. But, please - - -

PROF WOODS: I took a slightly different conclusion from the omission of those words, that in fact - and we don't disagree in many respects about the broader environmental benefits of certain of these measures, but the particular lens that we were asked to examine them through, in terms of individual producers and consumers, and so I thought it was instructive that they hadn't been included in that particular quote.

DR WILKENFELD: Look, I mean, it wasn't an intentional omission. I mean, I was just trying to be brief but I agree with you that, yes, it's - I have no qualms with it.

DR BYRON: If those words weren't in the terms of reference, we probably would have written a completely different report because we would have been asked a completely different question. It seems to me that the most important thing, the central point from what you said this morning, was that the proposition that what MEPS are about, is to deliver reductions in greenhouse gas emissions at no net costs.

DR WILKENFELD: That's right.

DR BYRON: If we're trying to test that proposition, effectiveness - you know, have there really been reductions in greenhouse gas emissions compared to business as usual - then it becomes critical to know what the business-as-usual scenario was and I completely accept that what you told us about, when you go back and in retrospect examine the projections of WIF MEPS, those projections have been adequate. But I can't agree with you that it is therefore reasonable to assume that your projections of business as usual must have been accurate. That to me is a quite different question. The fact that the projections of WIF MEPS haven't turned out to be quite good projections, that itself doesn't confirm business-as-usual projections are right.

DR WILKENFELD: I agree.

DR BYRON: So we're left with, you know, other people arguing to us that, because of technical developments overseas, because of trade, that either we're importing appliances from overseas or Australian manufacturers are exporting appliances that have to meet international requirements, that much of that emissions reduction or energy efficiency improvement in appliances may well have occurred even if MEPS had never existed. I mean, we're trying to test that proposition. I'm not saying that you're wrong, but that's the proposition we have to test.

Then the second part of your statement, "at no net costs," well, what you subsequently elaborated on there - as you say, we're dealing with averages because we've only got average data and you're right that there is no requirement that all COAG policies have to be no losers, and we shouldn't have implied that. But the question of "at no net costs on average" again is one of the bits that we have to test. How do we know that these are measures that actually make the consumers, the users, the people who buy these appliances, better off or at least no worse off?

The reason I think we were asked to look at measures which are, or appear to be, privately cost effective, is because there were people in governments, both Australian and state who, shall we say, were somewhat sceptical about whether there really were all these win/win options and low-hanging fruit, or how many of these low-hanging fruit there were and are they really at no net cost. That's why we're trying to unbundle a little bit further what might be the costs and to whom, and that's what's taking us into discount rates and the distributional issues,. The fact that if somebody wants to buy a clothes dryer to use four times a year when it happens to be raining for a week and they can't use their outside clothes line, a cheap and nasty one may actually be the most cost-effective option for that person and yet they will never know, because that cheap and nasty one is no longer available on the marketplace.

DR WILKENFELD: Can I just say that that's why minimum energy performance standards is not applied to a product. For example, we looked at clothes dryers and there is no minimum performance standards, nor is there intention to do some clothes

dryers for partly that reason, but there is labelling. But, I mean, everything is a matter of degree.

Can I just illustrate one area where I think it is almost the classic MEPS case, where it would be very difficult for anybody to argue that the savings are neither real nor cost effective and that's - there are minimum performance standards for the heat loss of electric water heaters. Now, that's absolutely classic. That was the first product for which MEPS was applied. However much hot water people use is irrelevant. If the thing is turned on, it's losing heat, so therefore it's irrespective of usage. It's almost the same amount of heat depending on the size of what tank for every single user. The value of calculating that heat loss - it's very easy to calculate the value of the heat loss, because it's a constant 24 hour heat loss.

It's also a reasonable assumption, because historically this is the evidence that the efficiency of these products has never increased. except in response to minimum performance standards, initially imposed by the utilities, but you see is no longer in position. That's a classic case where it's almost - it satisfies all the criteria. Not all of them are quite so clear cut. Nevertheless studying each product market you can be reasonably confident, increasingly confident as the data accumulates, and that the information from our product markets improves - you can be reasonably confident at projecting the effect of a particular intervention.

DR BYRON: That's a very good lead into the next question I was going to ask. Some of the appliance manufacturers in their submissions have said to us that for things like electric hot water for freezers and refrigerators, the outcome, in terms of delivered energy efficiency, very much depends on the design of the clients, and for those sorts of things, MEPS or labelling have a fairly strong case. As you get further and further into the areas where the outcomes depend at least as much on what's between the ears of the user - consumer behaviour decisions, as between what's hardwired into the appliance - then it's less likely that we can be sure of achieving outcomes purely by stipulating design requirements. You also have to have educated and sensible users, while there are those where taking obviously inferior and economically non-unattractive things out of the market is likely to be quite beneficial.

As you get more and more into the area where the discretion and behaviour of the user is important, it becomes increasingly difficult to be sure that we can get the outcome purely through design. I think, houses, if you think of that as a sort of a very large appliance, are also - there are some things you can do through design. Some things will depend on user behaviour. So it's very hard to just hardwire it. A couple of the submissions have made the point that all this focus on the design and the hardware has distracted us from thinking about user behaviour, how people actually use the washing machine, or how people actually live in the house, or

operate the airconditioners, and so on. Do you think we've overlooked the human element by concentrating too much on specifying technologies?

DR WILKENFELD: There are two things I'd say to that. One is that I've been concentrating in my submissions on the mandatory programs, which is labelling and MEPS. As the draft report points out, there's a universe of information programs and measures that are non-mandatory run by every level of government. I think there's no lack of attention to informing users in a whole range of ways, on energy conserving behaviour, and giving the information to behave in an energy efficient way if they wish to. It's being done. These are not either/or measures. Information is widely available, not necessarily from MEPS and labelling, but through other ways as well. On the actual design of the standards on which - minimum performance standards are based, and on the way in which products are measured, the standard tests evolve over time - continue to evolve.

As information about consumer behaviour with respect to use of a particular product, improves, then many of those factors are built into the design of the test. So, the test, themselves, evolve over time, to more and more - to try and better simulate the range of consumer behaviour. More and more, there are two or three test points done in the laboratory. The minimum rating is based on an average or a weighted average or some kind of algorithm that combines a number of different test points, which simulate different modes of behaviour. That's incorporated in many cases into the tests.

DR BYRON: I think like most other people, I had assumed for years that MEPS were an obviously, appealing good idea and beneficial et cetera, but as we've received more submissions about how the system works, I must admit, I've become a little bit more critical. Dishwashers and clothes washers that have 12 cycles, on which is a very, very efficient one, which scores very high in the test regime, but which is never used in practice, because the housewife quickly finds out that they don't do the required job. The other 11 cycles, which haven't been rated, are the ones that are actually used. That suggests to me that we could be seriously misleading the public.

We had in the hearings yesterday in Brisbane, someone pointing out that the test procedure for refrigerators is to have an empty refrigerator operating on maximum power in a sealed room kept at 35 degrees C, which didn't seem to me like a typical or representative context in which to test the efficiency of refrigerator over 24 hours - very rarely kept at a constant 35 degree C environment. It's just that the more we hear about how the MEPS are devised and tested, and that consumers never actually know what sort of appliances they're being denied access to, because they can't be sold in Australia, the more unanswered questions remain.

DR WILKENFELD: On the refrigerator one, it is true that the standard test is done - a closed-door test at, it might be 32 degrees, whatever. I was actually heavily involved in the development of the original refrigerator test. There's two or three ways of doing it around the world. The Japanese have an open door test, which is very expensive. They actually have a mechanical arms that sits, not in a 32 degrees ambient, but in a more representative of a kitchen, 21 degree ambient, and opens a door every so often.

We found that the closed door test - and the United States, on the other hand, which already had a test, used a closed-door test, and there's been considerable correlation of results using the same refrigerator on different testing regimes, that shows, using a closed door test, provided that the thermocouples are allocated in the correct optimum position within closed-door tested at a higher ambient temperature - gets a very close result to the open-door test, and is more reproducible from laboratory to laboratory.

It's better able to sustain a mandatory regime where reproducibility is quite often tested, or potentially testable in court. It's cheap, more reproducible and gives a very close outcome to an open-door test. It's not as if these - none of this actually occurred. It's not that it didn't occur to people that consumers open their refrigerator in practice. It's just that we've, I think, hit on a very efficient way of replicating user behaviour in a low-cost and reproducible way, by using a closed door test at a higher ambient. It doesn't invalidate the approach.

DR BYRON: The question that we're left wondering is, would the ranking of appliances differ if they were in a room that was 32 degrees for a couple of hours in the middle of the 24-hour period, but 20 degrees at other times of day? If you put it through a diurnal cycle, would we still end up with the same ranking of all the appliances being tested, or does the nature of the test conditions actually favour one model as opposed to other models? I don't know.

DR WILKENFELD: We have done a little bit of outlier tests. Clearly there would be - it's not difficult to hypothesise an usual usage pattern whereby the ranking of different refrigerators could be changed.

PROF WOODS: We're actually looking to the usual usage patterns, not the unusual. I think 32 degrees or 35 degrees ambient constant is unusual, as distinct from a diurnal temperature cycle which is usual.

DR WILKENFELD: But we've found that it replicates quite well the usual cycle, which is about 21 degrees kitchen temperature, with frequent door openings. It's actually an analogue of the usual consumption pattern. That's why they assess it that way. So the 32 degrees actually represents the - is an analogue of the typical and

average pattern. Nevertheless, I can see that there will be some users who have very peculiar thermal arrangements with their houses, where by a particular - they may have in all good faith sought to buy the most energy efficient product, the high star rating, yet because the temperature variation and the humidity patterns in their houses are unusual, they will be left with a slightly suboptimum - they would have tried to buy the best for their situation but because the situation is unusual they will be slightly worse off. Of course there will be such cases.

DR BYRON: It comes back to you point, that on average - the average household - - -

DR WILKENFELD: : Not just on average. On a great majority of households; we'd be confident to say that. Nevertheless we need to get the data to be able to test these outliers better, and I concede that. It's an objective.

PROF WOODS: On labelling, you draw to our attention some data drawn from an AVS document March 99. I confess I haven't had a chance to chase that up and read it, but I will. It does contradict the evidence given to this inquiry from the Department of Environment and Heritage, and also 2003 research undertaken for the AGO themselves. Although you don't acknowledge it in your second submission, they're the sources that we actually drew on to form the conclusion. We may have erroneously, but assumed that they would make representations to us that best accurately reflected how labelling changes consumer behaviour, and where it fits into consumer purchasing activity. Nonetheless if this document and your analysis disagrees with the department, and the research for the AGO, we'll certainly take it on board.

DR WILKENFELD: I must have missed the AGO's reference. Would you refresh my memory on it.

PROF WOODS: Consumer research undertaken for the AGO noted that consumers tend to get through distinct steps. It's spelt out here, "Winton 2003", and we've got the reference at the back of the document there. If you can demonstrate the error of their ways through your material - - -

DR WILKENFELD: I wouldn't quibble whether it's a second most - second or third factor if that's what it comes down to.

PROF WOODS: Theirs is well down the list. We're not talking first, second or third in their case. We'll take it on board, and, as I sat, I haven't yet had a chance to read your reference there, but I will do that.

DR BYRON: I'd like to come back to one of your earlier opening points, is that in

Australia at the moment there isn't a price signal for carbon. Some very cynical people have suggested to us that if governments really wanted to change household behaviour in terms of how they use appliances, change people's decision-making about how they decide which appliances or which houses or cars to buy, they would actually use the price signal because it's a very powerful way of influencing behaviour and purchase decisions.

In the absence of using the price signal, we're then left with a whole raft of other things, including MEPS and labelling. You said in your issues paper that these things might not be as effective as using a price signal, or tackling greenhouse emissions directly. Have you any idea what the difference is, how much less effective? If MEPS and labelling and so on are second-best options, any idea how much second-best there are? How much more we could influence energy efficiency if we could give energy users a price signal on carbon as well?

PROF WOODS: I think in that, your opening comments were - and I noted them. If pricing were fully cost reflective, there would be no need to look at environmental issues separately. That will appear on the transcript. So, yes, we would appreciate some sense from you of just how second order, second best, these are.

DR WILKENFELD: If I could, before getting to that - I mean, even if the carbon price were included in the energy price and the energy price were cost reflective by time of use and so on, there would still remain the issues of market failures. It wouldn't necessarily obviate the need to look at programs like (indistinct) which address market failures. But nevertheless we use an energy price in the analysis of how severe, as it were, to make the minimum performance standards, and if a carbon price were included in that energy price, then the same analysis run with the higher values for energy combined with carbon would lead to the conclusion that more stringent MEPS levels were available, were cost effective.

DR BYRON: Couldn't it also conclude that no MEPS was required because people would themselves choose to buy more efficient appliances and to use them efficiently because the price signal was directing them to do so, rather than giving them a signal, it seems to at the moment, that in spite of government exhortations electricity is cheap as dirt and people continue to not bother about economising on it.

PROF WOODS: So you'd still probably have a labelling scheme because you want consumers to be fully informed.

DR WILKENFELD: I guess what you would do is you would watch the impact on consumers from labelling first and that would give you a new data point on the extent to which the higher price, including carbon, was having an effect. Yes, I agree you'd want a new insight into the new level of consumer behaviour before going back to

have a MEPS analysis, yes.

PROF WOODS: I mean, labelling is something that we do conclude is likely to produce net benefits for consumers. So I mean we're not disagreeing that labelling and information to consumers is valuable because there is no way they are going to be able to test and understand it and rate those products. So there is not a disagreement there. But there is when you come to MEPS. You make great store in your second submission about mutually exclusive alternatives built into recommendation 7.1. I confess I've read this several times following your comments and I can't draw that inference. What we're recommending there is that there be a more comprehensive analysis of a range of things but they're not ranked as being mutually exclusive. If you can draw that inference then I'm happy that we go back and look at the drafting. What we were attempting to do, and if we haven't achieved it then we will redouble our efforts, is identify a range of matters that need to be considered in MEPS.

DR WILKENFELD: Could I just give an example of how I drew the inference. In the second dot point under draft (indistinct) 1, whether a voluntary standard such as Energy Start program would be cost effective than MEPS presumably, whereas in many cases the Energy Start program can co-exist with MEPS because the Energy Start program is a voluntary measure or a voluntary mark available to producers of goods that are far more efficient than the base level MEPS. So it's not an either/or, they're actually complementary. I mean, use MEPS to cut out the least efficient providers cost-effective to do so and Energy Start co-exists with that. So it's not either/or unless - - -

PROF WOODS: Are there other examples out of the seven dot points there or is that - - -

DR WILKENFELD: The first dot point - well, the way that I read it is that energy labelling, with guides from energy performance label, is an alternative to MEPS and once again I don't necessarily see them as alternative. In some products they could be complementary. Unless I'm misreading or misconstruing the - - -

PROF WOODS: No, we will look at the wording because I take on board your second dot point, that you could in fact have a gradation of things and in fact you could have several forms of information.

DR WILKENFELD: And likewise the very last dot point also, whether this endorsement label would achieve a more cost-effective result than MEPS or once again under some product markers they could work in harmony.

PROF WOODS: They could. Generally you could use one or the other but I'm

happy to - - -

DR BYRON: My interpretation of what we were trying to say there is if you had these things, like a disendorsement label et cetera, do you still need to have MEPS as well, given that an information label doesn't circumscribe individual consumers' choice of what is best for their own specific circumstances. I just get a little bit nervous about a committal of people I don't know deciding which products are worthy to be allowed onto the market on the basis of criteria that I don't know. It just seems to me to completely erode any sort of consumer choice and if governments really wanted to save households a lot of money we could do other things, like banning country-and-western music or stiletto heels or whatever.

Why circumscribe the choice of particular appliances on the grounds that somebody I don't know thinks that their energy efficiency, out of a whole raft of other attributes these products have, is not up to a certain standard? I think there was an onus of proof for those who want to prohibit the sale of certain products to have a very strong case for that.

DR WILKENFELD: Well, I mean, governments take all sorts of decisions to reduce people's decisions or range of freedoms about all sorts of things. Provided there is a case that would be accepted by the public who are subject to this control that on the whole the benefits exceed the costs, then that's kind of the social contract. That doesn't apply uniquely to MEPS. It applies to almost all areas where government intervenes in people's lives. I don't think it should be selectively applied to MEPS.

DR BYRON: But they're usually on the basis of human health and safety, of risks whether you're talking about crash helmets or environmental pollution, controls of toxic waste et cetera. There is usually a very clear danger of injury to human health, for example, which is a very powerful justification for governments to take strong regulatory action.

All I'm suggesting is the case for governments to ban certain products needs to be very clearly and explicitly justified and that the measures will be effective and they will not be overly expensive to most of society. That comes back to, as I say, your original proposition that MEPS enable you to reduce greenhouse gas emissions at no net costs. That, I think, is a perfect encapsulation of what the argument is and we're still working through the evidence.

DR WILKENFELD: A quick response is that, yes, historically health and safety have been the main drives of government intervention but, I mean, the objective of reducing greenhouse gas emissions, as possibly a very long time-frame way of maintaining climatic integrity or whatever, has been embraced by all levels of

government. It's a declared government objective. So presumably it's one that, say - so MEPS is an effective way, we believe a cost-effective way, of pursuing that accepted government objective, which goes beyond health and safety but nevertheless is endorsed by COAG, which is pretty much the highest level of government.

PROF WOODS: Could I end on, for my part, less on a note of heated agreement, and that's the role of price. We seem to be of common accord there at least, that if the price is more cost reflective of all - - -

DR WILKENFELD: Yes, we'd have less to do.

PROF WOODS: - - - then that would produce a first best response. I'm heartened by your comment here on MEPS in reinforcing that point, because you say that MEPS compliant models are usually indistinguishable from other non-compliant models and then you go on to say "Although energy bills would be lower than otherwise, it will be hard for most consumers to detect the effect over the normal seasonal variability, let alone attribute its cause." I mean, that's the whole point, isn't it? The savings are so small and for the consumer indistinguishable from the background noise of their daily existence, given current pricing, that is sort of one of your key arguments as to why you need MEPS, because normal consumer behaviour says, "Hang on, the very small amount that I'm likely to save from this" - as you rightly point out there, it would be hard for them to detect it out of all of the background noise of their existence.

DR WILKENFELD: That statement was made in response to the statement of the draft report, that MEPS carries a danger of so-called - was it bounce-back or it was - - -

PROF WOODS: Yes, but it has a validity in its own right.

DR WILKENFELD: Yes.

DR BYRON: Yes. Well, I'm sure that we could usually continue this for a long time but we'd better move on. But I do thank you very much for all the time and effort that you've put into this.

PROF WOODS: It was very helpful.

DR BYRON: For both the submissions and for coming today and for pointing out the misunderstandings or whatever.

PROF WOODS: Yes, we'll go back through them.

DR BYRON: You did make a comment about our voluminous reports. I agree with you that we tend to write reports that are too long, but I think the reason they're that size is that we do try and summarise all the evidence we've received and how we've analysed it and the findings and recommendations that come out of that precisely, so people can go back and track whether either the evidence base was defective or the analysis had defects or mistakes in it. We will be going back to check both what evidence that we've used and how we've analysed and interpreted that. So all your input into this in both submissions is very, very helpful, in fact essential, so thank you very much.

PROF WOODS: I notice you used "voluminous" rather than "comprehensive", but nonetheless.

DR WILKENFELD: Hopefully both.

DR BYRON: Indeed.

DR WILKENFELD: Thank you.

PROF WOODS: Absolutely. Thank you.

DR BYRON: Thank you very much for coming.

DR BYRON: Come and take your seats. When you get settled and comfortable, if you could just each introduce yourselves in the microphone for the benefit of the Hansard reporters. Thank you very much for coming today. Thanks for the hot-off-the-press submission.

PROF WOODS: Yes. We apologise. We won't be questioning you on it because we haven't quite had a chance to read it yet.

DR BYRON: So, if you could summarise it for us.

MR OUTHRED: My name is Hugh Outhred. I'm with the Centre for Energy and Environmental Markets at the University of New South Wales.

DR MacGILL: And I'm Dr Iain MacGill, also from the Centre for Energy and Environmental Markets at the University of New South Wales.

MR OUTHRED: First, can we apologise for getting this additional material to you so late. All I can say is it's not because we haven't been busy. It's just that there's too many things that we're trying to deal with.

DR BYRON: A fine application of the just-in-time principle.

MR OUTHRED: Thank you. I'd just like to start by returning to our previous meeting and the conversation that we had then, because essentially what we're doing here builds on the previous submission that we made, and really just teases out some more of the issues from that. So if we come back to our previous conversation - and this was on 15 November - and, according to the transcript Dr Byron, you said:

To think that there are all these 100 dollar bills that you're going to pick up off the ground and nobody is bothering to bend over, there's a paradox there.

I think, in a sense, that gets to the heart of the problem. There is a paradox there, but it's one that has to be very carefully investigated in this highly complex industry, and I suppose I'm a little disappointed with the draft report in that I think it veers a bit too much towards that old joke about the economist as being the only person who doesn't pick up the 100 dollar bill because he doesn't believe that it could possibly be there.

So the difficulty that I have with the draft report is that I don't think it does justice to, first of all, the complexity of the industry and, secondly, the opportunity that the Productivity Commission has here to make a really important and broad

contribution. I think it's made the mistake of perhaps getting caught up too much with the trees and not seeing the forest. And so, for example, with the interaction that we've just seen with Dr Wilkenfeld, my feeling about that is it very much got lost in the detail. I think there are extremely important lessons to be learned - for example, from the material that he is talking about - but they need to be put in a much broader context.

So I'd like to come back to two of the points that we made in our earlier submission and then lead on to deal with the one that we've, as you said, just in time, provided you. In our previous submission, we made a number of bullet points in response to the questions that were raised by the commission, and I'll just return to two of them. First of all, the most significant barriers - and this was in response to the question, "What are the barriers and impediments to adopting cost-effective energy efficiency improvements?" - and we said this:

First of all the most significant barriers lie in present electricity market design, in particular dysfunctional retail sector that doesn't send appropriate time, location and energy security price signals to end users; doesn't offer trusted and impartial energy service facilitators that help consumers to optimise delivery of desired energy services.

And in another bullet point, we said:

Present market arrangements with open-ended obligation to supply, security of supply concerns, electricity valued by its absence rather than presence, well-established and incumbent supply-side industry with electricity as its core business means that we see far more emphasis on supply-side rather than demand-side options.

That's the current state of play. The difficulty with selectively addressing policy interventions on the demand side - which is essentially what, I think, this draft report does - is that it may have the practical outcome of merely reinforcing the bias that already exists in government interventions on the supply, and in fact reducing the prospects of moving towards what I imagine would be the Productivity's preferred outcome, which is a well functioning market with less intervention overall.

In other words, to get to the position of less intervention overall, we may well have to have a transition path that includes a transition phase where there's a balancing up and more attention given to the demand side of the industry - the end users - if only to make them more aware of their importance in the whole energy-conversion chain and the role that they should be playing.

If I can turn now to our submission that we've just made. If you'd bear with us,

we'll just try and work through and pick up the key points on the way through, partly to give the opportunity for you to at least peruse what we have said. I'll skip the preamble because that's really just broad scene-setting, and just turn to the overview.

We start off by saying there that, "The role of the stationary energy sector is to delivery desired stationary end-use energy services to society." In other words, the role of the electricity industry is not electricity; it's energy services. This is the point - this is at which the values that the industry delivers are provided, and therefore in any rational investigation of options to delivery those services, we should start from the point of end-use and work back. This is true in a very broad economic sense, that unless we do that - if we instead say the problem starts with electricity and how we meet the demand for electricity - we have already missed out on the whole range of opportunities on the demand side, on the end-user side.

Now you will notice that the way that the government currently considers the electricity industry largely rests on indicators such as the demand for electrical energy and the growth in electricity demand, and it's that to which government policy responds in a whole myriad of ways, rather than the question of energy services, and this is the broad, high-level reason why it's very important to more carefully address the demand side of the industry. While I would agree with some of the comments you were making about the imperfections of the way in which it's currently being address through things like minimum performance standards and appliance labelling, where it's arguable about the actual numbers - while it's correct to point out and question the imperfections, it's incorrect to jump from there to a conclusion that therefore that whole area should be downplayed or ignored; rather the message should be, "We need to do this better," not that we should drop that because that's an inappropriate intervention.

Okay, so moving further through the overview, we set out there, if you like, a philosophy - a way to look at this industry as to consider the industry as operating within a very broad decision-making framework within which a number of actors are at play; and the electricity markets, to the extent that they exist, form only one part of that broader decision-making framework. So if we turn to the third page, we say that:

Decision-making in the sector comprises a set of activities. It includes policy settings and regulatory outcomes as well as direct participant decisions.

And it also includes, importantly, technical decisions that we'll come to a little later. All of these decisions and their associated decision-makers interact in important yet complex ways.

This is not an industry in which end users are fully autonomous

decision-makers, and in fact never will be. And therefore, while it's important to place consumer sovereignty as a high ideal, as the Productivity Commission does, it's important to understand the context in which they operate, and to recognise the limitations to that concept, because unless you understand that, then in fact by removing supports from them - which are some of the policy settings that already exist, or by saying that they should not be further developed - the commission runs the risk of actually reducing consumer or end-user autonomy rather than enhancing it, because it in fact then is potentially handing back more influence to the decision-makers that sit around those end users rather than the end users themselves, and we'll come to that point in a practical matter shortly.

So competitive markets alone are insufficient to manage this highly complex industry. They are a necessary but not sufficient part, and in fact unless they're put in the coherently-designed decision-making framework, they in themselves won't operate. So when I look, for example, at the Productivity Commission Report on National Competition Policy and the stress that it places on continuing that process, this inquiry needs to be very careful it doesn't act in a way that undermines that continuing transition. So we need to understand then the context in which competitive markets operate and the way in which the decision-makers around us are influencing both the information that's available to participate in that market and how the overall industry evolves.

Government policy objectives in the stationary energy sector generally revolve around the efficient provision of energy services to meet essential needs and permit ongoing societal welfare. This is really just an allusion to the complexity of government policy. We now of course have to sit within that framework the policies on climate change. As I'm sure you're aware, the chief scientist has advised the government that Australia should reduce its climate change emissions by a factor of about 50 per cent or more by 2050 and he has recently reiterated that. In other words, this is now part of the policy framework and it can't be ignored.

Therefore we can expect over time to see governments taking actions that will either directly or indirectly be aimed in that direction, and therefore it's important to make sure those interventions are efficient. But to say that there should be not interventions at all if they form an important part of that framework is a mistake. They'll happen, without the Productivity Commission's advice on how they should happen, carefully thought out, the chances are they'll happen in a less efficient way than they otherwise would. So very sophisticated advice is needed here.

Finally, power system operators also play a vital role in this industry and, in fact, take decisions because of the short-term nature - as you were pointing out earlier, really - the just in time nature of this industry, it is inevitable that some of the decision-making is passed over to central decision-makers, just as it is if we're flying

planes and other social contexts of that kind. They intervene in the outcomes in a way that, again, limits the amount of information that actually appears in markets to which end users are responding to. So when we come later to the central question which the commission has, as to the opportunities that end users have in the private sense to invest in end use efficiency measures, or take other energy efficiency actions of their own.

The problem is, we have to consider that in the context of the market that's provided for them to do that, and the price signals that actually come through that. So to pay lip service to the idea of cost reflective pricing is not enough. We have to totally think through what that means and the extent to which that's actually practical to achieve. In this industry, unfortunately, there are going to be limits to the extent to which we can implement fully cost reflective pricing; and that's a point that maybe we can discuss in more detail later.

So then given the incompleteness of energy markets in terms of fully encompassing the decision-making in the industry, we make the point that it would actually be remarkable if end use decision-makers generally undertook cost-effective levels of energy efficiency, because the pricing in fact is such that it doesn't fully convey to them important information about the value of the demand side decision-making full stop, whether it be energy efficiency decision-making or any other. Of course, this is an issue that the Productivity Commission is aware of, in terms of the importance of cost reflective pricing in inducing efficient demand-response times and constraints apply.

The question of energy efficiency is just a generalisation of that problem. It is a more generalised version of the problem of constrained supply than one that applies only for a short period of time. So rather than taking the position which the commissioners seem to be taking - and this came out in your conversation with Dr Wilkenfeld - that in fact, the status quo is appropriate policy and the onus of proof should be on anyone who wishes to see something different to prove that.

The commissioners, in my view at least, should more carefully consider the efficiency of the status quo before making such an assumption; and the difficulty that we have here is that the status quo is not efficient. The status quo has not created markets in which end users see appropriate signals on which they can make informed and sensible decisions about either energy efficiency or demand-responsiveness. Therefore, it is inappropriate to take the position that anyone who suggests we need to change from the status quo has a case to prove, when the commission itself hasn't adequately investigated and described the limitations of the status quo.

As a result, when the commission comes up against a whole history of previous work on the dysfunctionality of the demand side, and this previous work makes the

point that end users don't seem to be taking up end use efficiency to the extent to which it's cost-effective. The default that you have taken from that is that therefore that body of work is wrong in some way, that perhaps it's overstated the opportunities, and perhaps less can be done than all of that body of work suggests. However, you haven't really investigated other alternative explanations for that difference of view. You have assumed, as with the \$100 note case, that it's not there, because if it was it would have already been picked up.

So if we turn to the next page, under the point, "What is the best energy efficiency policy response," we make the point that in our view the draft report is greatly weakened by its failure to acknowledge both that many end users are not currently choosing cost-effective energy options because of the context in which they make decisions; and that government policy could be altered to improve the situation and to reduce transaction costs. In other words, rather than taking the line that there is a problem here, there is a challenge to be addressed, there is a paradox as you've previously said, that needs to be investigated, you've said, "No, we will instead take the default line that there should be no government intervention at all."

That would be okay if government intervention didn't already exist and wasn't already asymmetric and favouring the supply side of the industry. So in the next paragraph, we make this point: that this findings seem to us be flawed, because they consolidate existing market distortions, rather than just reduce them. As noted earlier, present energy markets are highly regulated and have significant government involvement. An argument for not taking policy action on energy efficiency is therefore not an argument against government intervention. It's only an argument against one type of government intervention.

For example, the New South Wales draft white energy directions paper, "reveals how the government plans to tackle New South Wales' burgeoning demand for electricity, which is being fuelled by the popularity of airconditioners." In fact, the government has acknowledged that. Their response to that problem is simply to build, and ought cause to be built, a new coal-fired power station. That is a classic example of government intervention, because by doing that, they automatically signal to all end users, "Don't you worry about that." So that is the context in which this report is being written, and to ignore that context, in fact, is merely to reinforce that approach to policy making. This is the risk that your draft report creates.

Instead of providing part of a broad framework which the Productivity Commission review of national competition policy said should be a continuing approach, or a continuing direction towards efficient markets, you're in fact propping up this dysfunctional intervention, in our view, by the New South Wales government on the supply side; because you're undermining their perhaps inadequate but nevertheless tentative and developing interventions on the demand side. If you have

a government that feels that it's going to have to intervene some way or other, and you take away the option from them of intervening in a more efficient way, and leave them only with the option of intervening in the less efficient way, then don't be surprised about the outcome.

So if we could just move on to respond to the draft report's key points. First of all, firms and households generally implement energy efficiency improvements that are cost-effective for them, and most do not deliberately waste energy. But energy has been cheap, and it's only a small percentage of total outlays for most Australian firms and households.

This is not really an adequate statement of the problem. First of all, the second sentence, "Energy has been cheap, and it's only a small percentage of total outlays." This reflects history. It doesn't reflect the new and developing policy context in which the Australian stationary energy sector operates. It doesn't reflect the statement I alluded to earlier by the chief scientist, that Australia needs to look at ways of reducing its climate change emissions by 50 per cent by the year 2050.

As you point out in your own report, the stationary energy sector, and particularly electricity generation by coal-fired power stations, is a major contributor to climate change emissions. Where does that point get mentioned when you come to your key points at the outcomes? Why is it enough to say energy has been cheap because it's only a small percentage of total outlays? Turning to the first sentence:

Homes and households generally implement energy efficient improvements that are cost-effective for them.

The point about that is, that they are responding to the price signals which they are presented with. If, as we already said, those price signals do not include important aspects of the costs, then we have to address the question of market design and how that market can be improved. So the difficulty with the statement and how you've got it is the way that you're using it or appear to be using it in the draft report, is as an argument for reducing policy intervention. But at the same time you're not addressing, and haven't stressed, the importance of it, and if you're going to recommend that, getting the pricing right.

Now to get that right is an extremely difficult and challenging problem, partly because so much pricing in electricity has to be a reflection of future uncertainty. In other words this is not an industry where production costs dominates. It's an industry where uncertainty dominates, and that is very difficult for markets to correctly address. This is not a simple industry in which a market can be readily established, that is truly cost reflective.

So you're taking on a very significant challenge if you are going to rely only on getting efficient pricing, and believe me I've been trying to do that for the last 30 years. So while I would agree with you that that should be where we're heading, the path to get there is neither simple nor straightforward and at the very least requires end users to take greater responsibility for their decisions, not less. That means government policy needs to become more sophisticated, and it needs to work with end users in a way that - as you point out - should, where possible, represent their sovereignty, but at the time needs to give them a much better framework in which they can make those decisions. Moving to the second bullet point:

Australian circumstances contrast with the relatively higher energy prices and/or harsher winters of the major overseas economies. Australia must achieve the right level of energy efficiency for its own context.

I couldn't agree more with the second sentence, but I can't agree less with the first sentence. The difficulty there is again this is a far too incomplete statement of the problem. Yes, we do have less harsh winters, but we're moving into a world of harsher summers, and in fact that's exactly why the New South Wales government currently has its problem with airconditioning and why it's moving towards building a new coal-fired power station. So you've created there a straw man in your comparison.

The other issue is that while Australia has enjoyed a low stationary energy costs in the past, they have relied on - as you're very well aware - cheap coal. If we're going to address the climate change problem, we can no longer continue to take that for granted. Basically, we have to move into a carbon constrained world where fossil fuels are used according to their highest value, not according to their lowest cost.

There's a remarkable default in all of this that says that prices should default to costs, whereas in a genuine market prices are in negotiation between an informed seller and an informed buyer; in other words, they lie between value and cost. All of the structure and in fact this is one of the problems we have in the present electricity market design, is that it always defaults to price being defined by cost rather than value. This is part of the problem that we face.

Without informed end users, without enough signals to them about where values lie and where constraints lie, then if we continue to simply rely on price being a reflection of cost, then we won't get efficient allocation of what is going to become more and more constrained coal resources, which must remain important to Australian economy. But for the economy to be most successful, we'll have to be more and more allocated to where they have the highest value. This isn't addressed there. The third bullet point:

Many governments see energy efficient improvements as a low cost means of reducing emissions of greenhouse gases, and thereby slowing global climate change. But increasing energy efficiency is only one of the possible ways to address global climate change.

Again, this is partially correct, but it's incomplete. Of course, energy efficiency is only one of the possible ways to address global climate change, but it's also an important one. It's not one that can be thrown away by saying that it's only one of, because when you actually look at the range of options, I have to say to you - and again, this is something I've been looking at for the last 30 years in the context of the electricity industry - none of them are easy, none of them are cheap and none of them are problem free.

In fact, we're moving into a world where we no longer have problem free cheap answers because the fossil fuels have been remarkable in that regard. This is again why its become extremely important to us that they are now allocated to their highest value, not flittered away through poor policy settings that allow them to be used in low value applications. So the fact that many governments are looking at energy efficiency, should be seen more generally than the way its placed there. They are looking at this because they, at least, are recognising that we are moving into a carbon constrained world, and that it has become important to allocate fossil carbon towards its highest value.

If or until we can correctly represent that as a pricing problem, then we have to use other policy measures, imperfect as they may be. Most governments around the world have recognised that energy efficiency policy, imperfect as it may be, is a necessary part of a strategy towards living in a carbon constrained world, in which I would agree with what I imagine your position is, that that should be reflected so far as possible in pricing. But to get there, we're on a very important, very difficult transition path, where we need all the help we can get, and your report needs to be part of that, not simply taking advantage of opportunities to go over old arguments. Let's move on to the next point:

Current levels of energy efficiency are below the levels that might appear to an outsider to be privately cost-effective, but the benefits of energy efficiency prudence may be overstated in the cost of adoption and underestimated. The real gap is likely to be much smaller than it appears.

Again, this is not helpful. It may be to in detail, but it's not helpful; it doesn't move us forward. All it's doing is reiterating an old debate about policy intervention or market approaches in a way that no longer addresses the transition that we have to make. We have to be more sophisticated than that. Certainly, at the moment it's true

to say, that the prices that end users face don't reflect the fact that we are moving into a carbon constrained world. To the extent that that's the case - and if we take that narrow interpretation - it may well be that not all the things that should be cost-effective don't appear to be privately cost-effective, because the prices don't reflect them.

But, you see, this is a problem of market design. It's a problem of not being able to yet achieve efficient pricing, and unless you can solve that problem tomorrow, then you better recognise that at least, for the time being, we need to work in this imperfect world; not one that correctly prices all of those effects in a way that would allow this decision to be made purely on the basis of markets and prices.

Other organisations, and they're not ones that are rabid left-wing organisations, are aware of this point. You do from time to time quote them, but then you just conveniently ignore them because they don't seem to support the line of argument that you seem to have already decided that you want to make. Let's move on to the next point:

The most important barriers to improving energy efficiency appear to be a failure in the provision of information.

Well, we can't agree with that, and in fact, in our previous submission to you, we made exactly that point. We said this, "Information failures are significant, but are not the most important barrier."

It's disappointing to see that reflected in your draft report. It's certainly the case that we didn't have time to put in a more complete submission, but I don't believe that that should be left with us to do. So to say that:

The most important barriers to improving energy efficiency appear to be a failure in the provision of information -

is simply inadequate at this point in time. Then to go on:

And the different incentives facing those who take decisions about installing energy efficient products - heaters, airconditioners, et cetera - and those who might benefit from them,

Again, this is an old debate. We know about split incentives. We know that work needs to be done there, but let's move beyond that to the bigger picture. So as we say it's unclear why the draft report believes, and I might say still believes, that the information that split incentives are the most important barriers to improving energy efficiency. I won't dwell on the details.

PROF WOODS: Do you offer there your analysis of what is the most important barrier? I can't see it anywhere here.

MR OUTHRED: We offered that to you in our previous submission.

PROF WOODS: True, but you haven't developed it any further here as I can see.

MR OUTHRED: No, because we didn't feel that we really should be obligated to do that. After all you're expecting us to put in these submissions in our private time and you're paid to do this report.

PROF WOODS: Thank you.

MR OUTHRED:

Some regulatory responses to these problems are appropriate but the commission favours light-handed responses and information provision where possible rather than overly prescriptive and intrusive approaches."

Fair enough, but only in a world that's balance, and only in a world where governments aren't going to intervene, as we've already seen, on the supply side. And it's not only the New South Wales government that is doing this, look at all the other state governments in Australia and their behaviour in this regard. So as we say there we would have hoped that the Productivity Commission favoured the most effective policy responses, light-handed or otherwise, that would provide a sound transition path to a less intrusive industry model. This presumably is consistent with what the Productivity Commission is all about but it requires a more sophisticated analysis than you have managed to achieve so far in your draft report.

If we take the view that this industry operates within a broad decision-making framework in which government or governments in general and regulators are and will always be essential parts of the industry that it's insufficient to consider that the end users should operate in isolation without the support of appropriate policy framework in which to operate. The difficulty there with light-handed then is it simply ignores all the heavy handed involvements in the industry that should be apparent to you and in fact were apparent to the Productivity Commission in this report on national competition policy:

Mandatory measures such as minimum performance standards override consumer and producer sovereignty and are inconsistent with the proposition that energy efficiency improvements they promote are privately cost effective.

Well, in the best of all possible worlds yes, but that is not what we're dealing with here and the Productivity Commission's task is to grapple with the reality, not the illusion. The reality is that this forms part of the broad policy framework in which this industry operates and in which the market, as we've discussed, is a necessary but only a part of the total decision-making framework. As we point out energy as a sovereignty is under much greater threat from the present day symmetry in government policy interventions towards the supply side of the energy industry than energy efficiency regulations such as MEPS.

We've already alluded to the New South Wales government decision about a coal-fired power station in New South Wales. We see a similar decision coming up in Victoria. Then of course you only have to look at Queensland and Western Australia to see similar things are on the boil. So the interventions are coming. The problem is how can those interventions be steered in the direction that is more consistent with an efficient outcome for the ongoing evolution of the industry than they otherwise would be. To simply pick on these particular interventions and say they should be taken away is inappropriate. All you're doing is picking on these interventions because they're the weak link in the total policy framework. They're the ones, if you like, that you can pick on without getting a reaction from state governments.

A sufficient case has not been made for the imposition of a national energy efficiency target and tradeable obligations. There would be many practical difficulties in defining and administering the scheme and complying with the obligations placed on regulatory entities. I'm very pleased to say we've got to one of your recommendations with which we heartily agree.

DR BYRON: Perhaps the only one.

MR OUTHRED: We will say no more about that one.

The nine point national framework for energy efficient stage one measures recently endorsed by the ministerial council on energy should be deferred until independent evaluation to existing energy efficient programs have been undertaken.

Well, terrific in the best of all possible worlds yes, but in the world where power stations are continuing to be built all this is doing is delaying the opportunity for the council to move to a more rational balance between supply and demand side options. The difficulty is those supply-type decisions, once they're taken are (a) irreversible and (b) are going to be there for the next 50 years. In other words the coal fired power station the New South Wales government is on the point of

proceeding with in New South Wales one way or another is still going to be burning coal beyond 2050 when our chief scientists have said we need to move a long way from where we presently are.

If you believe this is appropriate on the basis of theoretical purity to delay this work because it's imperfect I don't, because we're not in the best of all possible worlds.

Whatever the merit of the various educative, persuasive and regulatory approaches to encourage or mandate greater energy efficiency they continue to conflict with the signals given to energy users by Australia's relatively low energy prices.

We would agree with that but the question is what conclusion do you draw from that? And if you draw the conclusion that low energy prices are not only the history and where we are at present but are going to continue into the foreseeable future then we have a difficulty, and we have a difficulty because of this problem of carbon constraints and a carbon constrained world.

If we take a heroic assumption that carbon constraint will not actually eventuate and we won't have to worry about it then of course we can continue with business as usual but at this stage it's become a heroic assumption. This is the difficulty I have with the way that you are responding to Dr Wilkenfeld's contribution. You're essentially saying that the status quo should be accepted as a default unless somebody can prove otherwise. That's not appropriate under the present circumstances because of the changed nature of the long-term social, well, climate change risks that we now face:

Some energy efficient measures may not be privately cost effective and yet may generate no public benefits because of the environmental outcomes. These measures may prove to be sound public policy but they should be considered against other means of achieving the environmental objectives more directly.

Well, correct, couldn't agree more. We should be moving to a situation where these signals are more internalised in prices for example; but that's very difficult, as I've said, to do. The governments are, I think, trying to do that and of course they're getting advice from the Productivity Commission elsewhere to continue to do that. But to do that they have to work within the practical policy framework in which the lights continue to stay on.

I often use the analogy of electricity restructuring. It's like flying along, say in a 747 deciding you want to rearrange the engines on the plane without landing the

plane. That's the practical difficulty. We can't allow the lights to go out. It means we have to work with the imperfect, we have to work with what is possible along the way and we need to make some compromises, but they need to be within a coherent plan of where we're heading in the long term.

The difficulty with this report at that very high level is it hasn't established that transition plan and it hasn't created the context and set a vision for how energy efficiency and the whole range of end-user participation issues can be addressed. As I said at the beginning what it's just done is chosen to continue an old, outdated argument that is no longer relevant to the context we now face. We really need this report to create that vision for how energy efficiency can be part of a coherent transition strategy towards a situation where we don't rely so much on government intervention. But for the time being, we're not there. Therefore, your report needs to take the time at present into account, and to help create that vision for a transition. Thank you.

DR BYRON: Thank you very much.

PROF WOODS: Can I just at the start clarify. I misunderstood. I thought this was coming from CEEM. But you said that you'd actually prepared this in your private time. I'm lost as to who this submission is from. Is this from you two as individuals in your private time or from the centre or - - -

MR OUTHRED: Remarkable question.

PROF WOODS: No, it was just a statement you made that confused me.

MR OUTHRED: How many hours a week do you think academics should work?

PROF WOODS: I'm an adjunct professor at one of the unis.

MR OUTHRED: So you can answer my question. Answer it, please.

PROF WOODS: I work - most of my days I would be putting in, between the commission and my academic work and my consulting work - - -

MR OUTHRED: No, I was referring to an academic. I wasn't referring to you. I was saying - - -

PROF WOODS: Sorry, I thought you asked me to make - - -

MR OUTHRED: - - -how many hours a week do you think it's appropriate - we're talking about my contacts, right, not yours?

PROF WOODS: Okay.

MR OUTHRED: Please answer the question.

PROF WOODS: I don't know your details.

MR OUTHRED: Why did you make that flippant remark?

PROF WOODS: It wasn't a flippant remark. It was a statement that you've made, that you said you'd written it in your private time. I'm just wanting to understand the basis of the submission.

MR OUTHRED: Let me answer it, then, in a way that is appropriate in the context. Academics like myself and my colleague, Dr MacGill, work on average, as is well known, 60 hours a week or so. That applies whether we're sitting within a university centre, which is this is, Centre for Energy and Environmental Markets, and I'm the presiding director of that centre, or whether we're doing a normal academic job. Now, when I said my private time, I was talking about hours above and beyond what is regarded as reasonable for an average working person. Do you want to know when we actually prepared our submission that you've just received?

PROF WOODS: I suspect you probably completed that either this morning or last night.

MR OUTHRED: Both. Dr MacGill finished working on his part at what - - -

DR MacGILL: About 11 o'clock last night.

MR OUTHRED: I started working on my amendments to it at about 6 am this morning. You have the hide to ask me about where the submission comes from. I want you to apologise for the comment you made.

PROF WOODS: I apologise if any wrong inference you drew from it. But it was a question because you said you prepared it, and I took it by meaning as a private individual in your private as distinct from coming from the centre.

MR OUTHRED: If it was prepared as a private individual, it would not have been on this letterhead.

PROF WOODS: Okay. That's fine.

MR OUTHRED: No, it's not fine.

PROF WOODS: That clarifies me. Thank you very much.

MR OUTHRED: It's not at all fine. This represents what I would regard as an egotistical approach by you to people who have put in an enormous amount of time and effort in working in this industry.

PROF WOODS: As I say, I apologise if you took a wrong inference from it.

DR BYRON: Could I ask a question about the - let me rephrase that. Would you be prepared to answer a question from me about the subject of your submission this morning?

MR OUTHRED: Why don't you ask the question and we'll see.

DR BYRON: Thanks. It seems to me that many of the reactions that you have to the key points in the draft report are because you don't see them as forward looking with regard to the context as it is emerging in terms of Robyn Batterham's statements, in terms of New South Wales' decisions et cetera. My reading of what we were saying in those dot-point statements that lead off each of these subsection is our description of what has happened in the past, of how we got to the current situation. I never intended them to be a statement of what should be going forward, but simply a statement of how we got to the point that we're in at the moment. Does that make any difference at all to the way you see those points?

MR OUTHRED: No, because the purpose of this inquiry is to influence and advise government on policy settings for the future, not for the past.

DR BYRON: My reading of our terms of reference that we were given was to explore the question of why measures which appear to be privately cost effective, include energy efficiency, do not get adopted so often in practice. That, I thought, was the central question we're trying to answer, as a very small element of a much bigger question, which the govern hasn't asked us to advise them on, on what they should do about responding to global climate change.

They did not ask us to advise whether or not they should have ratified Kyoto. They didn't ask us to advise whether energy efficiency measures are the most effective and/or the least-cost way of achieving greenhouse gas emission reductions. They've asked us a much simpler, a much tinier question of, "We're being told that there are all these low-hanging fruit out there. Can you explain to us why people don't pick them up?"

MR OUTHRED: Yes.

DR BYRON: I feel that we're being criticised for having failed to write a different report. The report that we've written was responding to the questions we were asked to investigate. If we'd been asked different questions, we would have written a very different report.

MR OUTHRED: I'm sorry, but I don't accept your interpretation, and this of course is why I started today's submission by referring to that very point. I agree with you entirely with your central question. It's a reasonable question to ask. It's an important question to ask. It's not a simple question to answer. If we ask the question as to why end users aren't responding in a way that reflects, if you like, all the opportunities they might have or might take up, there are two ways to answer that question and/or two parts to the answer of the question.

What's happened here, in my view, is that you've missed the more important part, which is the question about the price signals and the market and the broader decision-making framework in which they are operating. I'm not asking you to write a broader report. I'm asking you to write a report that correctly addresses the question as you've been asked to consider. I agree entirely with the focus. I just don't believe that your report has correctly addressed that question. That's really what we've been trying to say for the last half hour.

It's not to ask you - I'm not asking you to solve the broader problem of quarantine. In fact, that's the point we make. What we're asking you to do is to correctly consider the role of energy efficiency and how both the market and the policy framework for energy efficiency may be developed in a way that allows it to contribute correctly in the long term in that context. That's quite a different question. What we would like to see you do is correctly address the question that you've been asked to answer. But what you've seem to have chosen to do is in fact take that as an opportunity to just criticise the existing policy on the demand side of the industry. That, I think, is a very poor answer to the question that you've been asked to address.

DR BYRON: Thank you. We will go away and read this very carefully. I thank you very much for the effort and time you've put into coming here today and in preparing the submission. I can assure you that we will study it very carefully. I cannot tell you what the final report will contain because I don't know at this stage. But we will certainly consider it very closely.

DR MacGILL: Just one question. Are we basically out of time or is there a chance for me to make some comments as well? I'm not aware what your schedule, what it is.

PROF WOODS: We know the next participant has signalled us that they want to

be leaving by 11.45, but carry on.

DR MacGILL: Sure. I just sort of wanted to make a few sort of brief comments. One, I think, certainly which has just been touched upon, is, you know, the scope of your inquiry. This, you know, certainly appears to have come up in a number of your discussions, and this issue of private cost effectiveness is the sort of starting point.

Really, as I sort of read it here in terms of reference, the commission is to examine and report on economic and environmental potential offered by energy efficiency improvements, which are cost effective for individuals, including through consideration of a huge range of things, including, say for here, arising from actions, including energy market reform and things like that. That seems to really say, "Let's take cost effectiveness in the view of all of the things that determine cost effectiveness in the view of all of the things that determine cost effectiveness."

I think that sort of goes to a point which is a really strong point made by many of the people working in energy efficiency now, including the International Energy Agency and so on, which is that the private cost effectiveness of energy efficiency is a policy outcome, as much as a signal that you start with. Policies that stimulate product or process redesign, market transformation and new expectations can themselves change what is privately cost effective, so your criteria of private cost effectiveness is actually an opportunity to explore these very significant issues of how you can transform private costs effectiveness: the role that policy can actually play in doing that.

In terms of this issue, of your view that information and split incentives are the most important barriers to improving energy efficiency - and you slot those in the area of market failure and so on. You know, as Hugh was saying, there's a much wider context to all of this but I really do think that these issues of generally low motivation among end users, and you certainly do a good point of covering the very low percentage of outlays that stationary energy is costing many of these users. But also the transaction costs issue: the effort of seeking out information and then undertaking energy-efficiency options, the nature of the risks and transaction costs involved. They're certainly very important as well.

Now you classify them under - I guess, Other Barriers is the official place you slot them, but the key point is that in many ways they represent market failure because through policy you can do things to reduce transaction costs, you know, as - you actually flag in your report MEPS and things like that can be ways to reduce transaction costs. You know, save people the effort that perhaps they're not prepared to make to fully investigate all their options, and do an analysis of how they might use their fridge and things like that before choosing.

So we really would like to see a greater effort on the ability to actually change transaction costs. We totally agree they're very important, and bottom-up engineering studies can neglect them. They're not doubt about it. But then the key question is not, "How do they change private cost effectiveness directly?" It's, "Is there something we can do about them to reduce those transaction costs?"

In terms of your view on light-handed responses and information provision wherever possible, I certainly agree with Hugh's views that, you know, in an ideal world that's a great place to start, but when you are looking at something which effectively is a major transition, the work we have on energy-efficiency policy and policy in general says that you don't assess policies individually; you assess them in terms of a coherent framework. Coherent frameworks, when you're looking at a transition - let's say, for example, in energy efficiency - you know, there's really a sequential sort of series of policies that all fit together. You need policies that are driving the leading edge.

You need policies that are promoting uptake and you need policies that whip the laggards into line. And those work together, and just talking about individual policies misses that; and also arguing only for one type of policy, such as, for example, information provision and light-handed regulation, also misses the fact that these policies work much better together than apart.

PROF WOODS: So just picking up there, you're focussing some of the dynamic interaction of the various policy stances - - -

DR MacGILL: Absolutely, yes.

PROF WOODS: - - - and what they can add. That's valuable - as I say, I haven't had a chance to read your submission, but have you elaborated that point in some of these other - - -

DR MacGILL: Yes, and there's some references there as well.

PROF WOODS: That's good. Thank you.

DR MacGILL: I guess another point is this issue of the national energy efficiency target and tradeable obligations. I actually want to pick up something a little bit wider there, which is the role of financial incentives; things such as the New South Wales Energy Savings Fund, and things like that. I think you make a very good point that there's a real question about financial incentives being given to people to do things that are cost effective for them anyway, and depending on how it gets implemented, things such as the New South Wales Energy Savings Fund might be a

good example of that.

However, I guess we draw a somewhat different conclusion in that the Victorian EPA scheme has a mandatory requirement to act on cost-effective obligations or cost-effective opportunities, and that seems to us to be entirely appropriate.

DR BYRON: You don't think that means that the people in the Greenhouse Office of the Victorian EPA know how to run large companies like aluminium refineries better than the people who own and manage them? I mean, my understanding of the way that works is that if the audit - sorry, the mandatory energy efficiency opportunity assessment reveals that there are measures that have payback periods of less than three years, the EPA then requires them as a licensing condition.

Now, what if the company has many other possible capital investments that have far more attractive - it seems to me quite remarkable that public servants, even those who are professional engineers, would assume that they knew what was the right capital investments for major international companies rather than the people who own and manage them, and yet it obviously doesn't strike you as unusual.

DR MacGILL: Well, I think this came up with George Wilkenfeld's discussion with you previously on, I think, a pretty similar point although in the context of MEPS, and that really is in some ways the nature of the social contract: what is a reasonable expectation, what are reasonable things that we are allowed to ask of firms and individuals. I think a three-year payback seems to be a pretty good promising opportunity - - -

PROF WOODS: But the fundamental question is then, why isn't the company doing it? What, in their great mix of various pressures and opportunities and assessments that they're making in the marketplace, is preventing them from doing it? And that's what we're trying to explore and to outline, because if you can get a better handle on that, you can then work out what's an appropriate intervention to get the right answer.

I mean, I think we've all generally got an intention as to what the right answer is, but you need to analyse what are the barriers and whether it's the capital cycle, whether it's other opportunities, whether - we got some good submissions from the abattoirs and meat-processing industry generally, saying by the time they worry about occ health and safety and food regulation and this and that, they still find time to do energy efficiency, but - this is a surprising and positive and pleasing thing, but in their total mix of activity, it's just one of many things to do, and to give it a priority above the others, they're saying that's just unrealistic; that it has to fit into their management behaviour.

So I don't think we're in disagreement in what we're trying to get to at the end point, but it's just a matter of where do you intervene and what's the most effective way of doing it.

MR OUTHRED: I think what's happening here is really the same sort of thing we were alluding to earlier. It's the other side of the equation you need to look at here, because so far you have assumed that the price is cost reflective, haven't you?

PROF WOODS: No. That's the fundamental problem. The cost isn't - - -

MR OUTHRED: But this is the point. In this kind of analysis, maybe government has a choice of two policy options: one, to make price more cost reflective, which might increase the price; the other, the two-point mandatory requirements of this kind on. Both are ways of, if you like, moving the decision-making context - adjusting the decision-making context in which the firm operates. If you're a government and you have a choice between a number of policy options, you need to consider fully the alternative options. This is the broader decision-making framework. Perhaps what the Victorian government is doing here is saying, for all sorts of reasons, we can't actually implement a climate-change cost at this time. We can't increase prices, but we can use this as a surrogate for it.

But instead of thinking about that, what you've just gone and done is gone down into this detail of saying, "Well, one person said this; another person said that." You're not looking at this in an umbrella way. You're not looking at the total policy context, which is what we're asking you to do: to think about the various imperfect policies that might be available rather than pick on this particular one is being unsatisfactory. Of course it's unsatisfactory, but so might be the other ones, for different reasons. Governments have to choose between imperfect options, not go straight to an ideal world.

PROF WOODS: We'll certainly look with interest at what you're talking about in terms of the dynamic interaction of the range of public policy. I think there's - - -

MR OUTHRED: But you haven't got it into your thinking yet. Otherwise you wouldn't have responded to that question that way. This is the problem.

PROF WOODS: I mean, the reason for these hearings is to expose some of those views and we are happy to take them on board and reflect on them.

MR OUTHRED: Yes, but you need to not only to respond to the detail - - -

PROF WOODS: No.

MR OUTHRED: You need to think in this broader way.

PROF WOODS: Yes. No, that's part of the mix.

DR MacGILL: Just one final - - -

PROF WOODS: Yes, sure.

DR MacGILL: - - - comment on your, I guess, final key point:

Some energy efficiency measures may not be privately cost effective yet may generate net public benefits. Measures may prove to be sound public policy but should also be considered against other means.

Certainly, as you were saying, that's difficult to do. It's very important to do. It's a difficult thing to do, but I think it's worth referencing the vast amount of work that's been done by national governments and others into this question, and you know there's near-unanimous agreement that energy efficiency can play a vital role in meeting our wider energy policy objectives. It might help if that was a bit better reflected in your report. That's it for my comments.

DR BYRON: Thank you both very much.

DR MacGILL: Thank you for the opportunity.

MR OUTHRED: Thank you.

DR BYRON: Shall we go straight through then rather than break?

PROF WOODS: Yes. Mr Justen.

MR JUTSEN: Good morning, gentlemen.

DR BYRON: Good morning and thank you very much. If you'd like to sit down and make yourself comfortable and introduce yourself for the transcript. We did get your submission last night. Thank you very much for the effort.

MR JUTSEN: I've just returned from the United States. I'm sort of catching up on a few things so I was pleased to get round to it. I'm sorry it was so late in the scheme of things. I would like to contribute in a very open exchange with you.

PROF WOODS: Could you just give your name and position for the record?

MR JUTSEN: Yes. Jonathan Jutsen. I'm the group director for a company called Energetics, and in the United States a company called Invintegral. We are an energy efficiency company. I have been in the energy efficiency business for about 25 years now, so I'm one of the dinosaurs of the industry, and have seen a lot, including a lot of cycles through some of the same arguments.

What I'd like to do is try and illuminate a few of the dark areas, if I can, from my experience which has been, as I said, international experience in energy efficiency, including the last four years working in the United States running our business there and I also worked in Europe, South-East Asia and Australia. What I might do, rather than try and summarise what I've said, I think I might - - -

PROF WOODS: No, we've had a chance to - - -

MR JUTSEN: - - - by hitting on some of the areas that you've raised as being of particular interest, and then on some of the way the conclusions are drawn, and then I'd be happy to exchange with you. The key issue that I've drawn on in terms of why do companies not take up the obvious efficiency opportunities that are sitting there looking them in the face, if they knew well enough, I put down to management practice and I've provided evidence that in fact, there are very poor practices and very poorly established practices of managing all sorts of resources in most of Australia's companies, large and small.

I was thinking about it this morning before I came in about what is it that makes Australian companies do this poorly. I think there are a few things. I think energy price is one of the issues historically, but it's not the key one. I think I've got enough evidence to show that in fact, the business practices are not necessarily related just to the cost of energy to the companies.

I think that part of it is a reflection of general practices across the businesses and not just related to energy. You can look at water, you can look at other management of resources, you'll find the same sort of issues. In fact, I drew out my papers and examples of how we report all sort of things poorly, compared to other people in the world. I think that part of the reason is our resource based industry has got some classic problems which put a greater management stress on, than in most countries.

I was thinking about this morning in bed and I thought, "Look, what is the classic cycle that I've seen over four or five times in the last 25 years that I've been in this business?" Resource prices are up, or paper prices are up. Everyone's making lots of profit. All they want to do is maximise throughput through the organisation, but everything else has got to be put on hold. We're in a big rush to get product out the door. We're making great profits. Keep away, we'll call you when we've got time. We're strapped for people, we're short of resource.

PROF WOODS: Realities of the firm.

MR JUTSEN: Exactly. Then the cycle turns, then plunge down goes the price. "God, look we'd love to talk to you, we've got to cut costs, but we're limited to one year paybacks. We've recognised that we're going to a big lull in prices. We'll only do things that provide an immediate payback. If you can prove to us, without spending any money on consulting, if you can prove to us in advance that it's going to save money in a year's - then we'll talk to you. Otherwise, you know, things are tough around here. We're laying off staff and we're restructuring. Come back again next year." So you come back again next year. Prices are on the way back up again. I've seen this cycle so many times.

What happens is, a lot of companies find it difficult from a management point of view to break through that cycle and they are locked into a roller coaster of short-terms that's reinforced by the capital markets which are looking for short-term results and they know there are things out there, and they're just not taking advantage of them and to the ultimate detriment to the company.

I'll give you an example of what happens when things are changed. We've been working with Sydney Water over the last few years to implement their Every Drop Counts program. Their Every Drop Counts program in a period from about 85 through to 90, had a very technical program, orientated to informational activities on the basis that if you showed companies the opportunity was there, surely they would take advantage of them. Bugger all benefit. That's a technical term by the way, if you didn't know. Hardly a measurable outcome. A huge amount of money expended on doing audits for hundreds of companies - no outcomes.

We worked with them for the last three years to implement a different program which took advantage of firstly, a recognised public need for doing something about water. A program built around our management practices methodology for helping companies to quickly evaluate how effective their management practices are, it's a process called 1 to 5. Linked with that, a corporate partnering agreement with Sydney Water and the company where they made obligations to each other to act and then a whole series of support programs to get public recognition for those companies, to provide financing and provide a whole series of support.

Lo and behold, with some of the fundamental same building blocks they had, they've got a program which was a dog which is now a program which has saved, in the last three years, the program has saved an average of 20 per cent of water for those top companies through basic, easy savings, which the companies knew were being lost and it required a level of corporate commitment. It required a level of integrated support for companies to allow them to take advantage of obvious savings that were sitting there on the table.

The same situation as with energy. The savings opportunities are large. The companies largely don't have the wherewithal to take advantage of them. They get lost in the cycle which I explained to you, and companies actually need some support and need some encouragement and sometimes need regulation to take advantage of those savings.

I also was reading something last night which also was a very interesting thing for me, for this issue. This was an article or a piece of the report that the government put out on corporate sustainability, an investors' perspective, the Mace Report which I think is a very good read, actually. There is a quote in here which says:

By way of example, the Canadian based Cyrano Research Centre applied this analysis to an industry's study looking at environmental regulation and productivity. The study delivered empirical evidence to support Porter's view that a measurable outcome from severe environmental regulation was counter-intuitively a positive economic effect on the corporation's future economic performance through the stimulation of innovations that enhanced, rather than detracted, from the company's returns.

PROF WOODS: Could you give us the page number of that for our records?

MR JUTSEN: Yes, this is page 15 of the Mace report. Our experience has been in these sort of areas, the same. Again, the Sydney Water experience was a similar one. When companies are brought to focus on areas of obvious waste and provided with

substantial and ongoing support to implement measures to take advantage of these waste, they make savings, they make substantial savings. They make savings greater than those estimates that have been criticised in the books because a lot of the estimates that are mentioned in the reports that you have analysed have missed the management opportunities through better management structures and acting on core process.

Notwithstanding some of the large, the very large companies like the aluminium companies, their protestations about being right on top of these issues, most companies, including large companies, are not right on top of energy issues. The savings are large and are not going to be captured without a fundamental focus of their management teams. As I said, I've got good documentary evidence of this from self-diagnostics that are being done with large numbers of companies over the last three years in Australia, which shows the Australian management approach to be substantially worse than, for example, the United States, where there is also no focus on energy and resources. In fact, the government is almost anti a focus in this area.

When I was reading the report, I must say I got a bit frustrated because, you know, having been in this for 25 years, like in your areas of expertise, I've seen a lot of these, the loops of these arguments go past before. In fact, when I joined the Energy Authority of New South Wales in 1989, there was a big focus on educational informational programs because we had an oil shock at the time and the feeling was, well rather than to regulate, rather than to - so we would take an education - there was an enormous amount of money that was spent on educational programs, almost to no avail. Not because there wasn't an ultimate large benefit there, it was because again, there were so many structural problems in the marketplace from decision making all the way through to economic issues, that couldn't be addressed simply through education. It proved to be just a very blunt and awkward and inefficient tool for achieving, for breaking the nut.

I was involved in the early days of putting in MEPS in Australia and we, from a policy point of view, we thought. "For God's sake, can we just go to a pragmatic view of this thing? " Instead of talking about philosophical issues about what's the right way to do it and say we believe end users' gut feeling, we believe end user will get a benefit out of this. We believe manufacturers can do a lot better. If we put in simple regulations which allow a level playing field, this will not only improve things for the customers who will not have to make complicated economic decisions every day, it will also help the manufacturers to understand that there is a very simple requirement that they have to put into their business cycle and they will build this in and lo and behold, the result of the whole MEPS experience was lower manufacturing costs and higher efficiency.

Because once they put their mind set to the fact that now the regulation is that

we have to go for higher efficiency, we don't have to worry about what's going to happen with potential future changes, with different states having different regulations, with different market dynamics. We can just focus our attention on how do we make this more efficient, and get on with it.

That's my fundamental argument about where the Productivity Commission should be on this. I think there is very clear evidence worldwide, as well as in Australia, that there are fundamental problems for businesses to get on with it and when you give them a clear set of guidelines and clear direction and clear, in some cases, regulation, they will get on with it. They'll find it's more cost-effective than they expected because they will have focused some management attention on it for a while, and lo and behold, at the end of that process you'll find again companies doing a lot better, being energy efficient and also meeting some of these larger obligations which are coming from environmental, greenhouse, and corporate sustainability reporting.

PROF WOODS: Provided we understand what other distortions it may create, and that we've thought through those and have got some reasonable level of confidence that it's not doing something else in the economy, or in terms of - - -

MR JUTSEN: I'd agree with that, in the absence of what's going on in the world. The fact is, all these forces are coming onto companies at the same time.

PROF WOODS: Absolutely.

MR JUTSEN: Regardless of what the Productivity Commission recommends. There are state programs that are going ahead regardless of what you recommend. There are forces on companies in terms of corporate sustainability reporting regardless of what you recommend. These things are happening now. They're happening at a great rate. The thing that concerns me: if the Productivity Commission says, "We're not quite sure what to do now. The evidence isn't strong enough" - and I'll come back to that point, because I think the evidence is plenty strong enough, worldwide, about what the correct thing to do is.

But even if you take into account your argument that in Australia the evidence is not strong enough, it ultimately will undermine the position of companies, because what's going to happen is the same sort of issues which ended up forcing MEPS to happen, there will be fragmented forces on companies, regulation in different regions, in different states, for greenhouse, for energy efficiency, for corporate environmental reporting.

Without the federal government taking a leadership role and showing that in fact the transaction costs for all players can be reduced by simple sets of regulations

and guidelines, and then force the states and the other players to come into line with those regulations; that's the sort of thing that companies actually will thrive from. They will have simple regulation and focus on reducing transaction costs, rather than focus on the fundamental issues of whether this is going to be good for companies or not.

Quietly, companies, even if they don't say it to the Productivity Commission, behind the scenes will say, if someone came in and cleaned the ballpark up - made everyone play on a level playing field, had some simple requirements for reporting which integrated corporate reporting requirements for environment, greenhouse, corporate sustainability and energy - this would be an absolute godsend to industry. It would be the one thing that could help them to reduce their transaction costs.

By the Commonwealth - and I think this report of your encourages the Commonwealth to stand back and not take an active role, except in providing some sort of educational and informational background - I think that is absolutely the worst thing, based on my 25 years of experience, for all the players in the market.; because I don't think it will be effective. I think it will defer things that could be effective that can be implemented now, and I think it will avoid rectifying some of the fragmentation that's already coming into the market, and that will come increasingly into the market if the Commonwealth doesn't take an active stance.

So that's a sort of summary. I feel actually a bit sorry for you, because a lot of the debate that I've heard going on seems like it's like there's two sides of a warring activity. I don't see that at all. I think there's an active debate going on, an active debate which I'd like to contribute to, and to me the terms of reference that you've been set were destructive of that debate, because - - -

PROF WOODS: I suspect they were very deliberately set.

MR JUTSEN: I suspect so, too, and I suspect that there's a relevance in the Productivity Commission's response. You were handed a poison pill, as far as I can see, because there are a lot of things going on in the world that are forcing activity in this area, both in terms of infrastructure issues, in terms of greenhouse issues, in terms of global environmental reporting issues, which are forcing companies to act in this area regardless of what the government might think is in their best interests or not; and by giving you a set of terms of references which basically say, "Ignore all of those things and make pretend that there's none of these things happening, and let's take a purely economical view of the individual situation for each individual company." I think it takes you down a track which misses the main debate which is going on in the country. But - - -

PROF WOODS: Can I just pick up an earlier comment from yours, and that was

that firms (a) like the level playing field, and we agree with that. Firms like certainty. You didn't say that, but we agree with that as well. You did say that firms privately - and you interact with them a fair bit, so I'm happy to take your advice and experience on that - are happy to provide consolidated reporting across a whole range of areas, and you talk about corporate sustainability and environmental issues and the like. I can understand that as well, because if you can streamline the reporting process so that it contributes to a number of competing demands through a singular set of reports, and that's in fact more efficient for firms, and that's beneficial.

MR JUTSEN: I think it's more than that, though. The companies are seeing a huge range of forces on them - - -

PROF WOODS: Yes, but that's the next bit I want to get on to. I think that's very different from requiring firms to change their production processes or to give priority to one form of investment over another form of investment, particularly if it's not apparent to them that it will give a greater level of profit in the next three to five years compared to another form of investment and the like. So I think I can understand, from my own experience of business, that consolidated reporting and greater certainty and things are good. But once you actually start to change their behaviour mandatorily, compared to how they see their business plan, then are businesses still telling you that they'd be happy with that as well?

MR JUTSEN: I think the situation that business is facing - and I can't speak for business, I'm not here to speak for business - - -

PROF WOODS: No, but you interact with them, so we're happy to take - - -

MR JUTSEN: Yes. My view of where they see themselves at the moment is that there are a lot of these forces that are coming into play on their businesses now, regardless. The best thing for them, given all the pressures that are coming to bear on their business, is that there are one set of - - -

PROF WOODS: One set of rules, that's clear.

MR JUTSEN: - - - consistent rules that they have to play with, which show direction for the next five or 10 years, and act on both energy efficiency and greenhouse and corporate sustainability issues; because without that, the transaction costs will be substantially higher. I think what they would be looking for the Productivity Commission to do is to in fact act in a practical way to impact on the transactional costs which they are already about to bear because of all sorts of other programs and activities that are going to impact on their businesses, to assist them to manage this more effectively.

Honestly, I don't think that companies are sitting there making decisions, saying, "We understand energy really thoroughly, and we've got a really good understanding of all of the things that we could do in our business with energy over the next five years. There are these set of one-year payback, and set of three-year paybacks, and we've put them into a fantastic calculation methodology with all the other things and energy projects don't come out well." I think it's just one of those areas which for a lot of companies is a bit too small to be on the centre of the radar.

PROF WOODS: Exactly right.

MR JUTSEN: When you force them to have a look at it, they find there are a lot of projects that are cost-effective. But unfortunately, my experience is that you have to force them to have a look at it, and then you have to provide them with some support, and then they'll get on and make cost-effective benefits in this area.

PROF WOODS: But they won't even make that initial small first investment of hiring a consultant quite often to help them do that analysis.

MR JUTSEN: Unless they're told that they have to, in which case they do, and then they bitch about it at the beginning and then they find that there are great savings and then they're happy about it at the end.

PROF WOODS: Yes, but if left to their own devices, they don't even make that front end small outlay, do they?

MR JUTSEN: I think, yes, some do, but I think - and I hate to say it - - -

PROF WOODS: Presumably, you've been refused a few times as well as been accepted through the door a few times.

MR JUTSEN: Yes, definitely. Things are very busy for us. I'm not saying that we should do this to improve our business, because we're very busy. But I think that what I'm seeing is a lot of businesses which haven't got the wherewithal to do the easy stuff, and I've found that when they are led to water and supported extensively through that process, they do find easy cost-effective savings and they do implement them. But they do need a lot of support, because their management structures aren't up to handling all of the issues in the business.

DR BYRON: Would you agree that companies that have good management structures and good management practices - good managers - tend to do not only energy efficiency and water efficiency, but they do OH and S, they do financial management.

MR JUTSEN: Yes, I agree.

DR BYRON: They basically manage everything well. There are other companies about to go broke who are basically managing everything poorly, and are going to be punished accordingly.

MR JUTSEN: Then there are companies that aren't about to go broke that manage a lot of things poorly too, because they're in that continual up and down cycle, and it requires exceptional management to manage very well through those cycles. Sometimes, they require some forms of regulation to actually get them to do things that you would think would be commonsense but, because of all of the other competing issues, never get around to it.

DR BYRON: As I said before, we've been asked to look at why is it that energy efficiency improvements which are, or appear to be, seriously privately cost-effective, as you said, keep getting left on the table. We concluded it was because the amount of money involved was not sufficient to get it on the radar. You've given a whole lot of other reasons, but all the data in your submission, I think confirms that for most companies and households, it's a very low priority. I'm perfectly happy to agree that almost every business and household could do things that would substantially improve their energy efficiency outcomes. But for most people, the answer, to quote your technical term, is, "Bugger it."

MR JUTSEN: The report doesn't say that. The reports says there probably aren't that big savings to be gained. That's just not true. A classic example is the water experience that we've just had in New South Wales over the last three years, where companies were saying the same thing three years ago to Sydney Water. They were saying, "Look, the reason why we haven't implemented" - I'll show you the report and I'll show you the submission, and in fact I'll send it to you, the submission that Sydney Water put in to the senate inquiry three or four years ago.

What they told the senate inquiry is they weren't able to gain savings and the results that they got when they surveyed companies is they said the savings weren't big enough, the cost effectiveness wasn't there, the business cycle was such that they found it hard to focus on those sorts of areas, and it was all the sort of arguments that you've raised in here. But as soon as they were encouraged, forced or otherwise to focus on it, all of a sudden - - -

DR BYRON: Led by the hand.

MR JUTSEN: - - - lo and behold, they are making the savings. They're glad that they're being pushed down this road. They've made good savings at very good cost-effectiveness. I'm not saying that I believe that there should be regulation of

what companies should implement but I do believe that some regulation that forces companies to have a look at what's there in some sort of structured way and report on it are good things because then they can make decisions where they can line up the various - I think that those things generally have proven of enormous economic benefit for companies. That's why I actually read you out that thing about the - most companies that have gone into corporate sustainability reporting.

We are doing a lot of corporate sustainability reporting with companies. Initial thought this is, God, this is going to cost us money. Why are we being forced into this by, in this case, the investment community. This is going to be a real pain, we're going to have to do a lot more reporting. It's going to cost us. Then, lo and behold, they start doing the reporting, they find all sorts of opportunities which they didn't know were there. They find great economic opportunities. It reduces a whole risk area for their business and they've got a huge benefit out of being forced to do what you would otherwise think would be common sense. I would even liken it to, maybe, financial auditing.

How many companies would do financial audits if they weren't forced to do it but how many companies gain enormous benefit by having an external party coming in and forcing the company to actually, from a corporate governance point of view, force the company to evaluate what's there and to look at whether they've got the correct processes in place.

DR BYRON: But there are probably, you know, capital efficiency experts who would come and tell us that we could go into almost any company in Australia and using our technical expertise, find ways of saving them 10 per cent simply through our superior expertise in how to do capital management and get - or HR consultants who say, we can save you 10 per cent on energy.

MR JUTSEN: I understand that. Why focus on energy?

DR BYRON: Yes. Why should you look at it through this lens rather than any number of other lenses which would also - - -

MR JUTSEN: I think that your point is perfectly valid if you are forced to take the terms of reference which doesn't take into account the other huge global impacts where energy is implicated which is, greenhouse, corporate sustainability reporting and environmental issues related to that and that's why I said I think that you have been given a poison pill because what I think the correct conclusion, from my experience is, that there is a good justification for encouraging and maybe forcing companies to have a look at what's out there for them because it will ultimately in their financial benefit. The reason that you should do that is not for necessarily things that are in your terms of references, because why you should put energy ahead

of some of those other 15 things, is the part that your terms of reference cuts.

Greenhouse is becoming a big issue, global corporate sustainability is becoming a big issue. Those things have to be addressed by these companies anyhow. They will end up being forced to because of - either through a carbon constrained economy or - so these things are coming to bear regardless and there are good reasons outside your terms of reference why, when you recognise there is a large benefit which could be taken and there's a financial benefit for the companies that it should be put up the totem pole because of all those other reasons. And infrastructural issues in many of the states is another, you know, one external to your terms of reference. So to me, there are three things wrong with the report that fundamentally flaw it. One of them is the terms of reference stop you from answering the fundamental reason about why energy should be put further up the chain.

There are three or four fundamentally good reasons why it should be pushed up the pecking order. The second thing is, I think that the methodology that you've used underplays the potential benefit for companies. I think there are substantial benefits for companies and I agree with you that they may not be the top-ranking savings in every company but they are often very high-ranking savings in terms of rate of return and companies are not aware of them because they haven't put the focus into that area.

PROF WOODS: But just on that one, you would stop short of mandatory adoption but you'd make mandatory the analysis and disclosure.

MR JUTSEN: We work very closely with businesses and to me that's because - - -

PROF WOODS: That's all right. That's the policy position to adopt.

MR JUTSEN: I believe mandatory implementation steps over a line which I don't believe that government should step over, personally. I'm not talking on behalf of the industry, I'm not talking on behalf of my company, I'm talking personally. I believe that you can get better outcomes from companies by letting them use their free imaginations about what can be done but I don't believe, and this is where I think I fundamentally step away from where you are, my experience in working with industry for 25 years is that I don't believe they can be left to their resources to make the best use of their resources to evaluate opportunities. My experience is that they don't do that necessarily and it's not just the smaller companies, it's also the larger companies.

When they are forced to focus on areas which they thought were not particularly important, they often find they were much more important than they

thought and again, my examples are, in this corporate sustainability reporting, corporate environmental reporting, some of those areas of regulation have forced companies to do things which prove to be a lot more cost-effective than they expected. I know energy is one of those, from my experience. The other thing that I think is wrong with the report, I think that the Productivity Commission should be utterly pragmatic in terms of it's assessment of what is the best sort of measures that should be implemented by the Federal government.

To me, a pragmatic approach says, you look at the practical situation that companies find themselves in, you have a look at historical experience about programs worldwide, what works and what doesn't work and then you act to implement things which have the lowest transaction cost for the players which get the impacts that you want. I don't believe that light-handed intervention is the correct response, from practical experience over thirty years, internationally and in Australia, I don't believe that there is good evidence to show that that sort of light-handed intervention provides good outcomes.

I believe that with a more, a sabre-like, very focused set of regulatory approaches that business will actually be advantaged through certainty, through avoiding fragmentation which is already coming into the market through actions that are already going on in energy, water and greenhouse and will provide a better outcome for companies and I think the Productivity Commission should take into account the practicalities of what business is facing now and should look at what can be done to reduce the transaction costs and potentially provide them some incentive to get on with it rather than to focus on stepping back from the playing field and letting the shemozzle that's going on now continue on without Federal intervention.

DR BYRON: One of the reasons for - one of the things a lot of people have expressed concern about is our suggestion to just hold off on rolling out and ratcheting up some of these proposed new measures until we know that they will actually work and others have said, don't just do something, stand there, or whatever.

MR JUTSEN: Look, a good example is - the thing that is driving me crazy at the moment, coming back from the United States, having a look at what's going on in New South Wales, is what's gone on over the last 10 years because of avoidance of regulation, for example in insulation, building standards in the West of Sydney which has allowed an absolute proliferation of highly inefficient airconditioning units in houses which were forced on individuals who know no better, a lifetime of high energy costs and discomfort and are now causing a large impact on infrastructure in the state to, you know, to supply those issues which are creating long-term environmental consequences for the country. Had we had the guts to actually mandate some things which would have been in people's best interests, 20 years ago we could have avoided a lot of this activity now.

PROF WOODS: Can you sketch out a half a dozen of the key things that

MR JUTSEN: I will do that. Look, MEPS is a classic example of a mandatory intervention which has created enormous good. In the United States, mandatory performance standards are being extended even though they have a government which is religiously against market intervention by the government and a very pro energy supply lobby. Even in the United States they are extending MEPS. They are extending both the depth and the breadth of mandatory standards because the market experience has been that where they've been applied they have provided a net economic benefit.

They have been a much lower cost way of getting outcomes and in terms of both the supply industry and the end users, they've gained an enormous long-term economic benefit from the intervention. Had the intervention not occurred, we'd probably still be arguing about what sort of labels should be going on refrigerators which is the sort of arguments we were having 25 years ago. The refrigerators would probably still be 25 per cent less efficient and we know what happened through that intervention. I mean, we know it was a fantastic success from the supplier's point of view because it gave them certainty. It forced them to focus in an area which ended up allowing the manufacturer a smaller range of components at higher efficiency. They've ended up enormously increasing the efficiency of the appliances which benefits the long-term cost for the customers.

We know those outcomes and you know, in a range of areas we know that the benefit has been great. It's interesting to me because I was at the beginning of that debate, 25 years ago and there was fierce debate going on about whether MEPS should be implemented for refrigerators. Absolutely fierce. You go and talk to the refrigerator manufacturers, go and talk to the consumers. I mean, it's been an enormous success, because in some areas the market is so stuffed up that some simple regulations which give everyone some clarity of where business should go, is the simplest and best thing for all the players in the market because you cannot - Hugh Outhred talked about some of the market imperfections. The market has got so many imperfections in this area you could spend the rest of your life studying them.

In some areas though putting in some, what I would call, right-handed regulation, for example mandating companies must report and must evaluate but not mandating that they have to do to me forces a quick resolution for companies of whether they need to take action in this area. There is a lot of activity going on for example in New South Wales where companies are going to be mandated to do just that. To me the correct position for the Commonwealth, and in fact the Commonwealth is going down that line with the EOA regulations, and those measures were heavily supported by major industry because they saw it as a great

way of avoiding cap and trade for greenhouse. So again, you know, you can't take away the realities of what is going on in the broader market. The industry wanted those regulations because they would rather have a regulation on reporting - - -

PROF WOODS: They didn't necessarily want those, they didn't want the others even more so.

DR BYRON: That is the least worst.

MR JUTSEN: Yes, again but you see what's happening. I mean the states are talking about their own cap and trade programs. If you step away from what is going on in the marketplace you don't create a benefit for the marketplace, you create confusion, and it creates high transaction costs, worse outcomes. That's where I think that unfortunately the Productivity Commission's recommendations head us. I mean if the Federal Government follows these we will end up with, and I know this with the certainty of 25 years experience, worse outcomes, high transaction costs for all players and a worse long-term outcome.

It will make Australia fundamentally more vulnerable because what is happening in greenhouse is going to impact on their business even if they're trying to make pretend it won't. We're running out of oil supply in Australia so we've got issues in terms of supply security from a petroleum point of view. The commission will do no-one any favour by encouraging deferment actions which will simplify taking actions in areas which are going to be forced on them otherwise. Again going back to the terms of reference, I feel sorry for you reporting under those terms of reference because in fact I think that you may be - without referring to what is going on in the broader economy I think you've been lead to a position which is not in anyone's best interest. By the way I would be happy to provide further information in the form of evidence, reports - - -

PROF WOODS: Now that you've got the sense of what we're interested in pursuing in further detail that would be good.

DR BYRON: I'd be very grateful if you could.

MR JUTSEN: And I'll also be able to have an interchange by email, phone, whatever where we can provide further information.

PROF WOODS: Our staff may inquire further of you on some of those matters.

MR JUTSEN: I think again we can provide some documentary evidence that the companies aren't focussing in this are. We can also provide some case studies - - -

DR BYRON: I think we got plenty of that already.

MR JUTSEN: We can also provide good case study evidence that in fact when they do focus that you get good outcomes and I think the Sydney Water case is a classic example. There what happened is it wasn't actually a regulatory process but it was the equivalent regulation because there was so much community pressure on companies to sign up a voluntary commitment, which companies did in fact sign in large number, once they'd signed that voluntary commitment and were forced then to have a look at their business practices in the area and then were provided with a lot of support to implement those measures they made huge savings. Again we've got all the documentation of those savings, and what happened when they just had an educational program before.

DR BYRON: Is that a general category of how businesses sort of plod on doing what they've done because that's what they've done, you know, performing mediocre and surviving. And it's only when a sudden sort of shock out of the blue hits them and they're actually forced to re-evaluate and then find that they could do all sorts of things better and smarter. You're saying that one of those external shocks that hits them over the head and forces them out of the rut is imposition of regulation. But there are any number of other things which could suddenly force them to take a long, hard look at themselves and improve the way they do - - -

MR JUTSEN: I agree. Look, if there was a 100 per cent price increase that would have an impact but my experience has been that I've been through several price jumps and what happens is that there is a big shock the first year and then companies find a new rut to go into which is set at a higher price level and they go into that rut. Mandatory reporting is one of those things which I think is a very effective way of keeping people out of the rut because don't like other people to see - companies don't like the public to see how inefficient they are in doing some of these measures and that's often a big enough issue to force companies to act.

DR BYRON: The general problem that we have in a lot of this area is there is a line of argument that says as the Australian economy has become more open to the national trade Australian companies, workforce et cetera have been under a lot of pressure to become more competitive, to tighten up and companies themselves have been telling us that they're now leaner, meaner and hungrier than they used to be 20, 30 years ago and that sort of story of companies really being under pressure, looking for every last buck they can find and ducking and weaving - - -

MR JUTSEN: It's just not true.

DR BYRON: - - -is quite contrary to what you're telling us.

MR JUTSEN: I think they are ducking and weaving. I think what happens - and I think this is what again a problem with the cycle in the economy can - in our economy we have much bigger cycles than other economics so it puts particular pressure on companies to keep focus on any issue for the long term. This is where energy and water and those sorts of issues get sort of swept off the table in a lot of situations. But you have a look at these companies. What's happened is the things they understand they do focus in on quickly. Like the aluminium industry does understand electricity. Most of the rest of the industry doesn't understand energy. Most of industry understands labour and what happens is every time the cycle goes down they sack all the labour that could do things like technical evaluations of opportunities for improvement in what they see as non-core business and they just don't get done.

To me this is bad management and ultimately is to the detriment of Australia. But I can understand and show you the reasons very clearly of what these things happen but the issue that you've raised is the right one, why does energy and water and those sorts of resources, why should you push them up the totem pole of the other areas that have been neglected which are not the labour and manufacturing, direct or manufacturing and related issues. I think that there are many arguments outside your terms of reference to explain exactly why you should do that.

DR BYRON: Yes, okay. I think we're going to have to let you go and thank you very much for staying a bit longer and for coming today. It's been very educational.

PROF WOODS: Yes, very helpful.

MR JUTSEN: Yes, thanks, I appreciate that.

DR BYRON: You should expect that we will be contact with you because there's a lot of things here that I think we would like to follow up.

MR JUTSEN: I'm happy to interact constructively.

DR BYRON: Thank you very much.

PROF WOODS: That's good.

DR BYRON: Okay. As I said, if anybody would like to come forward and put something on the record, now is an opportunity; but if not I'll adjourn, the public hearing to resume in Canberra on Friday. Thank you very much for coming.

AT 12.01 THE INQUIRY WAS ADJOURNED UNTIL
FRIDAY 3 JUNE 2005

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