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TRANSCRIPT OF PROCEEDINGS

PRODUCTIVITY COMMISSION

INQUIRY INTO WASTE GENERATION AND RESOURCE EFFICIENCY

MR P. WEICKHARDT, Presiding Commissioner

TRANSCRIPT OF PROCEEDINGS

AT MELBOURNE ON MONDAY, 6 MARCH 2006, AT 11.06 AM

Continued from 1/3/06 in Sydney

MR WEICKHARDT: Good morning, ladies and gentlemen. Welcome to the public hearings for the Productivity Commission Inquiry into Waste Generation and Resource Efficiency. My name is Phillip Weickhardt. I'm the presiding commissioner in this inquiry. The inquiry started with a reference from the Australian government on 20 October 2005. The inquiry will examine ways in which waste management policies can be improved to achieve better economic, environmental and social outcomes. The inquiry covers solid waste, and more specifically the issues associated with municipal, commercial and industrial, construction and demolition wastes.

We've already talked to a wide range of organisations and individuals with an interest in these issues. Submissions have also been coming into the inquiry following the release of an issues paper in December. We're up to 100 and still counting. We are grateful to the many organisations and individuals who have already participated in this inquiry. The purpose of these hearings is to provide an opportunity for interested parties to discuss their submissions and their views on the public record. We have already had hearings in Canberra, in Melbourne, Adelaide, Brisbane, Sydney and Perth, and this is the final day of scheduled hearings here in Melbourne.

We'll be working towards completing a draft report for government by the end of May, having considered all the evidence presented at the hearings in the submissions, as well as in other relevant information. Participants in the inquiry will automatically receive a copy of the draft report.

We like to conduct all hearings in a reasonably informal manner, but I remind participants that a full transcript is being taken. For this reason, comments from the floor cannot be taken, but at the end of proceedings for the day, I'll provide an opportunity for anyone wishing to do so to make a brief presentation. Participants are not required to take an oath, but are required under the Productivity Commission Act to be truthful in their remarks. Participants are welcome to comment on the issues raised in other submissions or by other speakers here today. The transcript will be made available to participants and will be available from the commission's web site following the hearings. Copies may also be purchased using an order form available from staff here today. Submissions are also available on the web site or by order form.

To comply with the requirements in the Commonwealth occupational health and safety legislation, I'd like to draw your attention to the fire exits, the evacuation procedures and assembly points; and first of all the fire exits are out this door and around to the area where the lifts are. Don't use the lifts, please, but use the stairwells there. We have at least one fire warden with us from the commission today. He will, I'm sure, be active if there were any emergency, and the alert in this

building is a typically beep, beep, beep, and evacuation is the whoop, whoop, whoop. The evacuation muster point is out in Treasury Gardens, out that way, and the toilet are around in the foyer area, and I think reasonably well signposted. Can I also ask the audience to please turn off their mobile phones or turn them to silent.

Our first participants are from the Department of Environment and Heritage, and I might ask you just to introduce yourself for the record and for the transcript, please, and give your positions. Thank you very much indeed.

MR BAINTON: My name is Paul Bainton. I'm the director of the environmental stewardship team within the Department of Environment and Heritage.

MS AYLIFFE: I'm Lynden Ayliffe. I'm the assistant secretary of the environment standards branch within the Department of Environment and Heritage.

MS HARWOOD: Mary Harwood, the first assistant secretary of the environment quality division in the same department.

MR MAZOUZ: Salim Mazouz, director of the environmental economics unit in the same department.

MR WEICKHARDT: Okay. Thank you very much indeed. We've received a doorstopper of a submission by you. Thank you. Congratulations for effort that's gone into it, and I'm sure it contains a huge amount of information which quite frankly, given the fact that it was received well after the date we had requested, we haven't been able to fully digest. But we will obviously be careful to try to digest it. I'm exceedingly grateful that you sent what Hyder, perhaps with tongue in cheek, referred to as their short paper. I think my printer suggested there were a hundred pages in it. So I'd hate to see their long one. But anyway, we will try and go through this as logically as we can, but forgive us if we haven't yet penetrated all the features in this, but thank you for the effort you've obviously gone to, to try and assemble a lot of information relevant to the inquiry. You might like to outline some key points that you want to draw to our attention before we get into questions.

MS HARWOOD: Yes. I might do that. Thank you. First of all, thanks for the opportunity to appear before your inquiry. It's a very timely one and it's exploring a significant environmental issue for Australia. The environmental costs of waste generation and disposal are often not reflected in market prices. This is due to a range of market failures including externalities, information failures and institutional and regulatory barriers.

Negative environmental impacts can occur at all stages of the cycle of production through to consumption and disposal. They include emissions to air, land

and water coming from the extraction of natural resources, processing, transport, consumption and disposal. Addressing these problems requires a horses for courses approach. There is no single waste policy in Australia. Each jurisdiction has its own policies, but core objectives include managing waste disposal to ensure protection of human health and the environment, promoting diversion for recycling and promoting resource efficiency and cleaner production.

Australia's waste policies have evolved significantly in recent years with an increasing focus on product lifecycle approach, because upstream market failures may lead to inefficient waste outcomes and the adverse impacts of disposal may be best avoided in the extraction, design or manufacturing stages. Also many environmental problems are linked directly or indirectly to products. Diffuse pollution sources such as cars, electrical products or packaging require more flexible policy tools than the traditional end-of-pipe controls.

The Australian government's role in waste management has grown in recent years, notably with the implementation of the National Environment Protection Council Act 1994. The Australian government is working closely with the states and territories through the Environment Protection and Heritage Council and the National Environment Protection Council on a suite of waste issues. Our aim is to provide leadership for the development of approaches where nationally coordinated action is necessary to address significant environmental impacts or to ensure that markets are not distorted by differing state and territory regimes.

There are strong community and political drivers for industry to take more responsibility for the waste it produces. States are under increasing pressure from the community to introduce zero waste policies and to make producers responsible for the waste impacts of their products. Without a strong, well-resourced national approach, states will introduce their own schemes, and they have the right to do this. The introduction of differing schemes across jurisdictions may be detrimental to industry and the economy and may result in distorted, fragmented markets for both products and recovered materials.

You will see that our submission places some emphasis on the concept of product stewardship. In Australia, product stewardship schemes are being used by industry and governments to bring the key players together to understand and correct market failures relating to waste generation and disposal of particular products. Product stewardship schemes aim to reduce adverse impacts by internalising unavoidable costs within the product price through action at the point in the product lifecycle where this can be most effectively and efficiently achieved.

There are national product stewardship schemes for packaging, newsprint, plastic bags, refrigerants, farm chemicals, motor oil and PVC. Schemes are being

developed for tyres, televisions and computers. Each scheme is tailored to the particular circumstances of the product or materials concerned. Product stewardship schemes are largely implemented through voluntary or co-regulatory arrangements. Because of the free-rider issue where non-participants in voluntary schemes may gain commercial advantage, there is strong support for co-regulatory schemes from government and industry. However, I'd point out that it's early days for product stewardship schemes in Australia, and we're very interested in taking on board the findings of this inquiry in the development of future schemes.

Finally, the conclusions of our submission identify some potential areas for government action including the need to focus on action at the national level on waste issues of the highest priority; the need to explore the full range of instruments available for achieving sound waste management and resource efficiency objectives; the need to assess the environmental, economic and social impacts of any proposed measures; the need for effective monitoring and evaluation of policies and programs already under way. A particular one is the need for better data. At a minimum, we need uniform data from the states and territories on waste disposed to landfill, and on the flow of products into and within Australia.

There is also the need for consumers to have better information so their choices can better reflect their preferences, that is in relation to environment protection and sustainability, and also the need for improved evaluation of environmental impact. So I'd leave it there just for some opening remarks, and we're happy to cover whichever areas you would like.

MR WEICKHARDT: Okay. Well, there's a range of queries that I have that start at the sort of high levels and perhaps go down with more detail. So let's start at some of the philosophic issues. You and a number of other people who have made submissions to this inquiry have raised the issue of resource efficiency and sustainability. A number of people have said that they think the whole issue of sustainability, to which obviously the Australian government is committed, is relevant to the terms of reference of this inquiry because extraction rates of raw materials are a known sustainable level is quoted, and that part of the action the government should take should be to send a signal about that through waste management policies.

I must say that I'm having trouble following the logic of a lot of these arguments. In the first place when people quote the fact that virgin raw materials are supposedly too cheap - I'm using a paraphrase form of words here, but do not reflect the full cost, and therefore do not send a signal about resource depletion and sustainability of extraction levels. Some of the things they point to as to reasons why those raw materials are too cheap are because government has chosen in their view to subsidise those prices or to support costs in an unsustainable manner.

It seems to me bizarre in the extreme that government should seek to take some action on waste policy to fix a problem that in their view government created by applying some subsidy to a raw material if that sort of subsidy is material to the whole issue, and that's something that you might like to comment on. But it's a bit tortuous to try to tackle a problem that was created by government, if it was, in terms of subsidising raw material extraction by another government action surely at the waste disposal end. Would you like to comment on that.

MS HARWOOD: I might start on that. The primary purpose of waste policy relates to addressing environmental impacts, whether they are at the disposal end which has been the traditional control focus or addressing environmental impacts that arise further back up through the production chain. In terms of the lack of logic in having policies driving in different directions at both ends of the chain, I'm not quite sure how to sort of comment on that. But I think the point is that in resource efficiency terms, in addressing environmental impacts and looking with clarity at the pricing through the production chain, there are both environmental benefits to be delivered and also improvements in resource efficiency; that is, in the quantity of resources used to produce a product. That might get us started. I'm not sure where you wanted to take the subsidy question.

MR WEICKHARDT: I guess philosophically, I'd have to say I'm very sympathetic with the comment that the Business Council Roundtable for Sustainability made in their submissions suggest that if there is a problem with the pricing of fundamental resources, that why don't you tackle it at that point rather than try to tackle it at the waste disposal end of pipe?

MS HARWOOD: Yes, there's a sense in that, and I don't think that for instance in our submission we're advocating trying to solve all the ills of the world through action at the disposal end, but it is looking in terms of the way waste policies are constructed, that if they can be more effectively - if there is a more effective point of intervention further up the production chain, then you should look for that, and overall, the sort of net social benefits, social outcomes from that action will be better than if you applied it just at the disposal end of the production chain. I don't know if others wish to comment?

MR MAZOUZ: Maybe just to add that one of the reasons why one might want to influence the sort of resource extraction pricing I suppose is that some of the externalities arise downstream, so arise at the waste end of the scheme. So some of the production processes all the way up the line have environmental externalities at disposal. So to some extent it may be worth trying to see how one can keep those back up the production chain.

MR WEICKHARDT: Clearly tackling the problem close to the point of origin seems to make a lot of sense to me. I don't think we have any issue fundamentally with if there's an environmental problem caused at the point of disposal, that that problem is recognised, and clearly some price signal needs to go back up the line. But the issue of an environmental problem that's not recognised at point of extraction, tackling that by applying some sort of tool or instrument at the point of disposal seems, as you say, particularly tortuous.

MS HARWOOD: It certainly may not be the most effective place to try and change the way that input is priced.

MR WEICKHARDT: I guess the other side of that is this sort of sustainable rate of extraction of materials. You I think reference the objective of dematerialisation, and I guess I'm still trying to get my mind around - and I will rely on smarter people than me to advise me on this issue, but others have suggested to us in submissions that the prices that raw materials are sold at do not signal resource depletion issues. Do you have a view as to the degree to which the market prices for many raw materials that Australia exports and sends around the world, whether they do reflect any signal to the user about resource depletion?

MS HARWOOD: It's not something that's been the sort of prime focus of this work that we're doing here. It's a much broader issue. But in sustainability terms, I would say there are concerns. Just looking at the sort of global assessments of whether the current levels of resourcing extraction are sustainable in the long term by the current human population and future human populations, then the rate of extraction in terms of providing a sustainable future for future generations is in question.

MR BAINTON: Could I add to what you just said, Mary. Our submission has endeavoured to focus not primarily on that issue of resource extraction or consumption, but really about the pattern of flow of materials through the economy. You referred to the Hyder appendix. In fact there's two appendices there. One is for Hyder which talks about data. The other one is a piece of work that's been put together for us by Curtin University, and following on from our discussion right at the beginning of this inquiry back in December, we thought it could be quite useful to actually explore what we do know about resource efficiency, and business often understands that term as eco efficiency, and the World Business Council for Sustainable Development for example uses that term.

So what we've tried to do is to not look per se at resource consumption, resource conservation, but to look at how those materials travel through the economy and the value that may - and the work by Curtin is really a summary of our current knowledge. It's not complete, but it gives an indication as to where there may be

some benefits to the economy from examining where we can do things more efficiently. Dematerialisation is a term I believe that Curtin have used. We're not obviously advocating total dematerialisation.

But our experience with for example packaging shows that there's benefits from lightweighting - yes, there are risks from lightweighting, too, but there are benefits in terms of greenhouse emissions, but also in terms of just straight financial benefits to companies from doing things smarter, more efficiently in the economy, and some companies are doing that without any prompting. Others are now starting to embrace that because of the principles that are embodied in the covenant.

So what we try to do in our submission is to I guess put a thought piece into the submission that may challenge the current thinking about resource efficiency, maybe take the debate as to what resource efficiency means, if you like, to the next level. It's a work in progress, but we're very keen to try and explore the real potential to the economy of doing things more efficiently.

MR WEICKHARDT: Again at a philosophical level, since you've raised the issue, let's sort of come to that matter of helping companies discover these gold bricks that sort of sit around, and many examples are cited of case studies that are in the sort of "I told you so" - you know, "We proved that actually by sort of doing something, there is an economic benefit." Having come from industry, I have to tell you that I often wish that some of these worthy advisers from government would actually start their own businesses and find out that all activities in business involve trade-off. I don't see governments necessarily being in the best position to advise on this.

If government suggested that the marketing plan should be revised so that there should be more attention on this feature or benefit or the advertising program should be changed or that an executive should spend a bit more time on the logistics of their exercise, they'd all be right. "Look, your loan covenant here is a bit stupid. If you'd take a longer term or you'd have more in fixed or more in variable borrowing rates, you could have saved money." All those things exist every day in every business, and there are imperfections and inefficiencies in every activity that goes on, in government and private enterprise, in education, in health, everywhere.

The issue is as to whether or not governments spending taxpayers' money pointing out in one minute part of business - that is, their waste activities, they could more efficiently do activities - is actually adding any value. I must say I find it bizarre to think that governments really should be spending their time doing that. Surely the competitive marketplace means that if there are real pay-offs to business in doing this, the ones that discover it and spend time doing it will prosper, and the ones that don't, if that is the highest value way they can spend their time, not spending time on their loan covenant or on their marketing plan or their export

program, all these things are trade-offs, and the question is where should companies devote their time and energy?

MS HARWOOD: I don't think we're presuming to either be missing it in terms of when that action should take place or telling people what to do. But if we're looking at addressing priority waste issues where there's been an environmental impact related, say, to a product identified that is serious and has ramifications for human health and the environment, and we're going to work with industry and with other jurisdictions as necessary to identify the most efficient ways of dealing with that problem and addressing it sufficiently to deal with that harm, then in that process, it's quite feasible that there may be efficiencies delivered or flowing from the changes that would occur in addressing that environmental issue that's arisen in relation to waste.

So it's not a sort of "we know best and we'll tell you what to do". It's a very long and complex process working with particular industry sectors where there's been an environmental impact of concern identified to work out the best way to address that. That process does - it is very sensible for that process to look not just at the end of pipe. Even in voluntary schemes, industry has identified for itself and gained for itself gains in its resource efficiency.

MR WEICKHARDT: If there are environmental issues, government has absolutely right and imperative to intervene to send a signal, either through regulation or through price, that something needs to be done. But as I say, the issue of - I think some people have suggested to us that companies need a jolt to actually recognise that there's money to be made by some of these activities. I mean, companies need jolts in every form of their activity, and it's normally given by the fact that the law of the jungle says if you don't get up and run pretty fast, you won't exist.

I guess in terms of the other philosophical issue that we debated with a number of people at a higher level comes the issue of what is the optimal level of tackling some of these issues of resource recovery and recycling. There are lots of cases that have been pointed out to us where some recycling schemes made a huge amount of sense. Economic signal that they make sense, I don't think any person would say that, unless it's one single aluminium can that's sort of sitting in - I don't know - Woomera or somewhere out in the middle of the desert, that it doesn't make sense recycling aluminium cans.

On the other hand there are other activities involving recycling where the direct economic signal suggests that there isn't actually a value and an immediate payback. We'll come back to the other less easily quantified parts of that, but the true believers keep on saying some is good, more is better, and yet it seems to be often forget that

the very process of resource recovery and recycling involves resources themselves. We've got to be very careful that we don't just fall into the trap of saying one size does fit all and we should be aiming for a hundred per cent recovery in recycling of all these products, because it seems to me that we'll consume a lot of resources in that process which isn't in the interests of the economy. Do you share my view?

MS HARWOOD: Yes. That brings us back to the sort of horses for courses to some degree. The aim of waste policy is not waste minimisation as an end in itself in judging the character, the strength of a measure, the way it might apply, the type of scheme, whether it's going to be voluntary or regulatory or whatever. You're balancing the desire to address the environmental impacts associated with the waste with other concerns, and the practicalities of what can be done.

So there's no sort of absolutes. In each case it's a judgment balancing social, economic, environment - like, working out what mix is going to deliver the best outcome, and that will be affected by, amongst other things, the extent of environmental harm that you're seeking to address and the character of that harm. If it's something that's incredibly serious to human health, you are more likely to act in a hard and swift way. More subtler things will be addressed by subtler means in terms of the policy approaches available to you.

MR BAINTON: Could I just add as well, that's why the submission tries to stress the importance of a lifecycle approach, so that we don't push one end and have it bulge out at the other end. So we've got to take a holistic approach to the way in which we manage waste.

MR WEICKHARDT: I think the principle of that we're totally in agreement with. I'd like to come shortly to some of the examples where maybe that approach seems not to have produced - well, maybe the approach hasn't been applied or maybe the approach has been applied in a way that seems to have produced a bit of a bizarre outcome.

I know you're not here to represent or defend necessarily the policies of any particular state government, but coming back to your point about the fact that there was a balance required and a horses for courses situation, some of the state governments have adopted mantras of zero waste or zero waste to landfill which we've seen examples of producing what at first sight would appear to be a rather perverse sort of outcome.

We had somebody at the Melbourne hearings from one of the local councils who was talking about considering an alternative waste treatment facility here in Victoria which, based on some of the evidence we've heard in this inquiry, would appear to be a particularly expensive way of tackling that particular waste stream,

and we said, "Out of interest, have you considered as an alternative the reasonably advanced and sophisticated landfill option that's operating at Woodlawn, and how does that compare in the costs and benefits with the approach you're adopting?" They said, "We couldn't consider that because that's not consistent with zero waste to landfill policy that the Victorian government have."

Do you have any concerns that these zero wastes or zero wastes to landfill policy catchcries might actually not drive the best social, economic and environmental outcome that you were referring to that should be the underpinning of all our policy in this area?

MS HARWOOD: I think the states each have different characteristics in terms of the sort of geographic and the waste issues they're addressing and the options available to deal with them. They have aspirational goals - several of them - in terms of zero waste. All of them would say that zero waste is in itself unachievable, but that their aim is waste minimisation. They are also responding to community expectations and pressure to be dealing with waste in the strongest ways that are available to them. So I don't think we really want to be criticising or otherwise that they're dealing with the situation as the best they can in addressing those waste issues in line with the expectations of the people in their jurisdictions, and there is an aspirational aspect to it and also a desire to stimulate recycling industries and things of that sort.

MR WEICKHARDT: I suppose my question was, it's all very well to have aspirations, but if we're looking for the best environmental, economic and social outcome, the optimum outcome for our society, that enhances our welfare and sort of the welfare of those who follow us, is having this aspirational target actually likely to help in that process or is it likely to hinder?

MS HARWOOD: I don't know that it's going to hinder it.

MR WEICKHARDT: Let me give you another for instance from another state. In New South Wales, we had the Department of Environment appear before us, and we were talking to them about their recent decision to increase the levy on a regular basis. It appears from what they've said and others have said that the origins of the levy increase go back to the target that has been set, that 65 per cent of material should be diverted from landfill, and when you ask where did the 65 per cent number come from, it came from apparently the Wright report, and I need to be absolutely certain about this, but I had understood originally that that is a - what is a technically possible diversion rate as opposed to what's an economically efficient diversion rate.

But it appears that the government basically said to industry, "What will be necessary to achieve that sort of diversion rate?" Industry came back and said, "It's

going to cost us $134 million per annum," I think was the number. So as a method of actually achieving that, the New South Wales government said, "This is the rate at which we'll increase the levy so that we actually hit that number." It was almost you go the impression it was a whatever-it-takes number.

Again I find it difficult to see that this is necessarily going to achieve the optimum point that you referred to before in terms of all the complex considerations we've got and not applying a one-size-fits-all type of application. Do you sort of understand my concern?

MS HARWOOD: I understand your concern. I think there's probably no right answer to what the perfect recycling rate is in terms of the judgments made. But that government is making a call on essentially a judgment and what they consider reflects the wishes of the people in their jurisdiction, and they're pursuing that with a range of objectives in mind. I feel a little uneasy in terms of commenting in detail on things of that sort because the true costs to landfill and all the economics around what actually is a truly costed mass to landfill charge is not something that I feel expert in.

So to be making commentary on whether it's too high or too low or fair or unfair or sensible or not sensible I don't think is - I don't feel I can add to that debate in terms of you asking me to comment on a particular state's measure about its choices about the charges that it places on landfill.

MR WEICKHARDT: I understand that, but government - and I think at a federal level - is concerned about cost of regulation, and this will be, given the way the projections are going, in New South Wales when you look at the diversion rates, to hit their target, construction and demolition appears to be reasonably well on track in terms of diversion rates. Municipal waste appears to be more or less on track. If you were optimistic, you'd say they might hit their target. The area that is nowhere near on track is commercial and industrial. If federal government is genuinely concerned about cost to business of regulation, this surely is a major impost on business which, if it's not going to achieve an optimal level of economic, environmental and social outcomes for our people and is based on an arbitrary sort of "lets just pick a macho target", surely that's of concern?

MS HARWOOD: Except that it is really a matter for each jurisdiction to determine how it wants to cost policies that the landfill - at that level of waste management, and if it were going to be a matter for national action, it would have to be identified and brought forward in that way by the states acting in concert with the Commonwealth, and that's not something that's occurred. So it really is each jurisdiction's call on how they manage those domestic waste issues.

MR WEICKHARDT: I understand that, and clearly this is an issue that I don't want to spend too much time in, but it does seem to me to be relevant to the efficiency of our overall economy if these charges start to become a major impost.

I guess the Business Council for Sustainable Development made a submission, which I suspect you have seen, and they made a strong point that they felt that policy in the area of waste ought to first of all be based around the COAG principles that were signed off on in terms of regulations should be clear in terms of their objective. They should look at the cost and benefits of the different alternatives, and then they should apply those. I assume you agree those are sensible objectives. It seems a bit hard to argue against them at first.

They also then made a point that they felt there should be very much a values and risk approach that drove the strategies in waste. Are you able to comment on what they were advocating in their recommendations and their concerns expressed in that submission about the way waste policy is trending at the moment?

MS HARWOOD: I think that those objectives are ones that people looking at national level waste issues have foremost in their mind. In terms of working on the various priority sectors identified for action by EPHC, there's a very rigorous process of working with the jurisdictions and with industry to identify the most cost-effective way of intervening. There's a regulatory impact assessment. There's a great deal of work looking at whether the potential solutions or measures available are in fact the most effective way of dealing with it and are well constructed and so on.

So I think those basic objectives that they want measures to meet are actually being pursued very actively in the schemes that are being developed at the national level, and it's quite a - well, it's a lengthy process and it does work very thoroughly with the industries concerned, and it's a very publicly accessible process in terms of the stages of documents going out for comment and the availability for all players to insert their views into whether the mix of measures proposed is as it should be.

MR BAINTON: Could I add, just in terms of the value and the risk, one of the features that's emerged as we've struggled and grappled with this whole issue is are we valuing the externalities associated with these products and these materials appropriately, and I think that's an area - I'm not sure if the Business Roundtable elaborated on how they should do that, but it's an area that we're very keen to make sure that we do actually develop in this area.

Financial costs are pretty well documented. There may be some variation depending on which economist you might speak to, but the social cost, the environmental costs we need to mature I think within Australia and how we value those things. Just in terms of risk, sometimes it's very difficult to grapple with the

concept of risk. When you release an agricultural chemical, the risk to the environment, to human health is very well documented and there's a process that you can go through to evaluate that. But for example the risk from putting electrical equipment into landfills maybe in rural areas for example where that landfill may leach out heavy metals, it's very hard to quantify that level of risk.

So we can be supportive of the value and the risk-based approach, but it does need to be more than just the principles or the concepts. It needs to go further than that, and there's also the intergenerational risks as well. For example, landfills in - our submission finds that landfills in major cities are reasonably well managed now. A lot of effort is put in to make sure that the liners are good liners, but what are the intergenerational impacts over the future years of landfills that may break down, and these things happen. These things can happen I should say.

MR WEICKHARDT: That is an issue that perhaps we could just dwell on for a moment because we've had lots of different input on this issue and it is fairly central to part of the terms of reference and the sort of conclusions that we might reach in this inquiry. I think everyone says that with the benefit of hindsight, there had been landfills that have been poorly managed that have created problems and externalities over time. As a footnote, we've had a couple of people from government agencies suggest that although those environmental consequences are clearly undesirable - and with the benefit of hindsight, we wish they hadn't happened - they appear to have been fairly localised in Australia and we don't seem to have had the sort of US Love Canal-type situation with municipal landfills.

But turning to a modern, well-constructed landfill with methane capture and leachate recycling and things of that sort, it's been put to us by a number of people that the externalities associated with that based on all we know today are reasonably low. Do you have a view on those sorts of consequences and externalities with a best technology landfill today?

MR BAINTON: That's probably more a question to direct to the states. I'm not trying to avoid the question, but really it is very much a technical issue that is better directed at state governments. I would say that - you talked about methane capture. That's not a perfect capture. There's still a significant amount of methane that escapes. But overall I think that's probably best addressed direct to state governments.

MR WEICKHARDT: Yes. Certainly we've asked that question of a number, and most would suggest that the direct consequences would appear to be, and the direct pricing of those externalities would appear to be pretty low. Where much higher numbers are cited from an overall lifecycle point of view come down to this resource depletion factor, but the leachate, the greenhouse gas consequences, odour, noise

emission, those sort of things, appear when they've been quantified for best technology landfills today.

The numbers that we've seen from most people suggest that those are fairly small numbers now which have to be contrasted against some of the very significant investments that have been made in more sophisticated recycling facilities. One of the issues that's been pointed out to us frequently is that some of the interventions that have been made as a result of government policy in this area have succeeded certainly in diverting materials. The question is whether or not they've given rise to other products that are actually useable or saleable or have a commercial value.

I didn't think we'd be getting into composing matters as much as we have, but I think we've had at least 10 and maybe more submissions by compost associations, and all seem to agree that there are certainly issues in terms of the amount of compost that's being generated at the moment. A lot of organics have been diverted and a lot of compost has been made. But figures have been quoted to us of 450,000 tonnes of compost in New South Wales sitting in stockpiles around Sydney looking for a home, and quite significant numbers in other states.

I guess one of the issues that we're trying to get our minds around is the value. If the externalities in a modern landfill with the right sites available are fairly low, how should you look upon the policy of using such a landfill compared to investing a lot of money in an alternative waste treatment facility that ends up making a product that either the market doesn't seem to want or which may be in the wrong location and may be very expensive to transport? Do you have any concerns in those areas?

MS HARWOOD: It's looking across the board in terms of you've got the - it's definitely true that modern landfill practice has vastly improved the environmental performance of landfill. There's a cost to that that is the real cost of developing. Managing through the full decades and beyond of managing landfill long after it's closed need to be incorporated, and we put a discussion on landfill in our submission, but I'm sure you've had very detailed information from the states as well. But as to the real full and true cost of that process in its entirety, it's important to make sure that that's what we're comparing. So to get to a good environmental outcome, what's the true cost of that.

The other thing is to look at what's going into landfill that's driving particularly serious problems down the track. In some ways, the focus of some of the attention at the national level is on products that deliver particularly toxic things to landfill. In terms of the economics of individual recycling schemes generated in particular states and areas, I guess to some extent the market will drive that, but it's true that there are cost structures that favour recycling or said to promote it at least in the states.

MR WEICKHARDT: There's a lot of government intervention that's driving it, too. I don't think many of these facilities would have applicant been built if there hadn't been some government intervention in the process.

MS HARWOOD: In some cases the markets have to develop in terms of if you move - I mean, if you take waste oil as an example, there's a serious environmental impact, and yet the market for waste oil is still developing. It may mature and may end up falling out into a different shape from what it looks like now. But it will have been a very good thing overall that there was an intervention at the beginning to encourage the development of that industry and to encourage the collection of that oil.

I'm not saying that's the case for compost or not necessarily. But it's important to think or to look at the fact that there may be action that happens in the short term that does amount to direct intervention, but delivers a long-term benefit because a stable recycling industry develops.

MR WEICKHARDT: Sure. I understand that. The issue that I suppose we've been reminded of on quite a few occasions by submissions here is that once industries see government trying to provide some sort of jolt, quick start, incentive for something to happen, industry is very quick to want more, and the compost industry association want more. They want transport subsidies and special assistance to overcome some of their problems. I guess the great issue is weaning industries off some of these supports that were put in place and with well-meaning intentions.

MS HARWOOD: I think that's the intention of the new schemes that we're developing. We're certainly looking at it from that angle and how much assistance they might need to actually get the markets up and running so they're self-sustaining.

MR WEICKHARDT: I'm now burrowing down into a particular individual detail, but since you raise that issue let me do that. In the oil scheme, as I understand it at the moment, there is a differential support raised for different applications that used oil might be put to. I suppose if you wanted to sort of characterise it in a flippant way, it would be an example of a government picking a winner rather than letting a market decide what the best application of that used or recyclable oil might be. Surprise, surprise, we've had those people who are associated with recycling oil to a supposed higher value say, "This is entirely appropriate. Don't worry. After five years, we won't need this. It will all be a sustainable."

We've had those people who have been denied waste oil because they're deemed to be a less desirable outlet for it, say, "This is all wicked government intervention and unhelpful." How are those differential support numbers being actually arrived at? What's the sort of basis for it?

MS AYLIFFE: My understanding was when the government was looking at this intervention, it put out a discussion paper and it talked about trying to promote recycling, and I think it also recognised that at that point in time, which was back in I think 99 there's a discussion paper, it talks about they recognised that the bulk of recycling was for burner fuel. They also recognised that with coal and gas coming on stream and being picked up by power stations, that the market might not be sustainable long term I think for burner fuel, and they also wanted to promote lube to lube if they possibly could.

So my understanding is that they introduced that differentiated rate to actually encourage lube to lube. It really came as a push from industry who said they were almost there and needed just an added incentive to get there, and I think it still then took three years and some money from the transitional assistance program to actually get a plant up and running, which is at Wagga, and I think we've got a second one coming on line next year in the Hunter.

So at the beginning of the scheme, I think most of the - I think 75 per cent of waste oil was going to burner fuel, and I think they were trying to set the different rates to encourage a varied market and that was the basis of why that was adopted.

MR WEICKHARDT: Do you have any view as to when that sort of differential support will be removed and you'll let the market find its own value?

MS AYLIFFE: At this stage we have a review in 2004, and it showed that the scheme was working well. So at this point in time, we haven't actually decided to change that. There's been some changes to those rates. I think there was a change recognised fairly early on that was to do with waste oil that was going into the ink and paint industries. So the rate there was changed to recognise that. So I think it will be responding as and when a problem emerges.

MR WEICKHARDT: Okay.

MS AYLIFFE: Did you want me to talk about the access to burner fuel that has been raised in the cement industry?

MR WEICKHARDT: By all means.

MS AYLIFFE: I might as well comment on that because we certainly have been approached by the cement industry who feel that their access to the market is being denied, and actually under the scheme, the amount of waste oil now available - at the beginning of the scheme, there was potentially 280 million I think that was potentially available, but they were only recovering between best estimates of

150 to 165. Last financial year there was 220 million and 200 million of that was actually going out as burner fuel. So there's plenty on the market. I'm advised by our oil stewardship advisory council that it's really a cost issue and that maybe they're not happy with the price that's now there.

MR WEICKHARDT: The market has found its level.

MS AYLIFFE: I think it has, and in Europe actually there's quite a - because Europe takes quite a heavy-handed approach to these issues, and they subsidise the cement industry and others to use that sort of material.

MR WEICKHARDT: Okay. Just trying to close off the landfill issue and the landfill externalities. I suppose again this is, you would say, mainly a matter of state enforcement and regulation, but we've had a number of people say you sort of have to accept that we are in a situation where remote and small landfills will never comply with the best practices for landfill regulation. There will always be significant externalities. Yet from an environmental point of view, there are some things that you probably shouldn't be compromising on at all.

Do you have any view as to the degree to which from a national point of view we should simply demand that landfills meet some sort of absolute minimum standard, whatever that is, and that we suffer the costs that either those individual communities have to pay much higher costs or some of the small landfills that can't meet those objectives close down and waste is moved in greater distances?

MS HARWOOD: I think that is an issue that the states can and should address. I think perhaps one of the things we alluded to in our submission is developing best practice guidelines so that for small councils and remote areas, some collective work on how best to solve those solutions could - that could help those landfills perform better and more easily than if they were trying to fix it themselves; so some collective national work to provide best practice guidelines.

But if there were to be intervention of the sort you speak of, the logical first place for that to happen would be at the state level, and only at the Commonwealth level if there was a collective agreement in EPHC that that was an area that a national standard of some sort necessarily should be applied. Even then the logical way to apply it would be through state legislation. So you might create a national standard and then apply it back through state level measures, but in a consistent and harmonised way.

It would need though to reflect the geographic and sort of climatic and other variances in that managing landfill is going to be very different in Tasmania than Far North Queensland. So whatever you're doing needs to fit with the environment that

you're actually working in.

MR WEICKHARDT: Sure. But if the environmental consequences are sufficiently important, then it seems to make sense to me that you have an absolute standard and somebody has to find the technology required or the location required that will meet that. I want to just close off the issue of - if I can for the moment anyway - the sustainability and resource depletion issue. If resource depletion is a serious policy concern to the government from the point of view of sustainability, is the government looking at setting some sort of export cap on the rate at which Australia's resources are dug out of the ground and exported?

MS HARWOOD: It's not an area where I feel confident to express the government's view. Not as far as I'm aware is there such a limitation proposed.

MR WEICKHARDT: Again it would seem to me that we're probably consuming our resources much faster exporting them than we are consuming them in the local market. It just goes back to the sort of question mark as to where policy is being contemplated to I guess tackle that issue if it's of a major policy concern. If resource depletion is a major concern, would it be in your department that it was really tackled?

MS HARWOOD: At that scale and issue, I imagine it would be an issue for COAG or for government overall, not just for our department in that it would bring in the department's knowledge in resource extraction across the board. So it's an issue that's bigger than us.

MR WEICKHARDT: Okay. You talked about the issue of I guess evaluating social and environmental risks and really trying to put some dimensioning on them, and we note the work that you have appended from Hyder and previously ITU Nolan, and we note that they have been very frequently cited doing work in this area. We have already raised with one person who's submitted to this inquiry who attached a Nolan report that we see some of the Nolan numbers being often quoted and requoted in support of different actions by trying to assess through total lifecycle analysis what some of these eco dollars are.

I have to say we're still trying to understand the derivation of some of these numbers, and we have put some specific questions back to, in this case, GRL who attached a Nolan report, and we've had some preliminary answers back which look helpful and we will pursue those a bit further. But I haven't yet penetrated all the Hyder work that you have submitted, but it may be again the case that there is information cited there that we would like to try to understand better, and I think given the fact that the report has come through you, it would be better if we pursue that back through you.

MS HARWOOD: That's fine.

MR WEICKHARDT: If I can just sort of signal that that's an area that we're still trying to get our minds around, and it's pretty important, because some of the numbers that are quoted by ITU Nolan are very large, and swing therefore the conclusions that arise from that sort of analysis.

In the area of extended producer responsibility, a lot of different motivations are cited depending on who's talking about them as to the merits of EPR schemes. Local councils seem to, with almost rage, say that this has got to put the costs back where the costs belong, and it's unfair for the council to bear the costs. I reminded one council that I didn't think they bore any costs at all. I thought the ratepayer bore the cost, and the ratepayer might be the consumer in the first place anyway. But nonetheless the issue with EPR schemes I guess is where does a signal about where the cost is borne best produce a good outcome.

We've got an EPR scheme that's been developed for televisions at the moment. Given the fact that I think there aren't any televisions produced in Australia, to what degree do you think that sort of EPR scheme sends any signal that's relevant back in terms of design or packaging or manufacture of a television set where probably 1 per cent of the world's market for television sets - I mean, has Australia in this sort of area simply got to accept what the Europeans and the Japanese and the Americans drive or do you think our policies in those areas can have any influence?

MS HARWOOD: Certainly for products with such a high importation rate, developments overseas will have a profound influence on the shape those products arrive in and their recyclability et cetera, and there's been very intense developments in Europe in relation to electronic products. But I guess any scheme that's developed for Australia in relation to those products need also to take into account the character of the Australian landscape and where those products are likely to go in terms of waste disposal and so on. But Paul might like to comment further.

MR BAINTON: I'd just add that you're right, that we receive so many of these electronic goods from overseas. But we do have companies that operate overseas that operate in Australia - Sanyo, Sony - so there is a link between the Australian arm of those multinational corporations and the overseas people. In terms of driving change, there's no doubt we're a small voice in the global sense.

But I'd also like to try and focus away - well, to move from extended producer responsibility into the whole concept of product stewardship, which our submission does try to tease out, and that is to deal with some of the issues that the community wants to tackle: for example, the issues to do with the end of life disposal of

televisions and other materials like that. The consumers have a role to play as well, as indeed local governments as you pointed out, and the manufacturers and indeed state and federal governments all have a role to play throughout that value chain. Extended producer responsibility is a part of that value chain, focusing on the producer. But we like to explore the full sense of that value chain in trying to develop solutions, because that way you can try to deal with the externalities that lie throughout the supply chain and not just simply tackle one part of it.

MS AYLIFFE: And I guess when you're talking about electrical equipment that is largely imported, we are looking at the moment at the restriction on hazardous substances adopted by Europe because - and we had a workshop at the end of last year, I think it was, where there was quite a lot of support around the table from industry to actually consider harmonising with that, because they acknowledged that we don't want to be the dumping ground for the rest of the world and that if we want to be productive and compete in the marketplace we need to make sure that we do harmonise in some way. So we are looking at that and working forward from that as well.

MR WEICKHARDT: Right. Now, you provide a suggested sort of framework for co-regulation that sort of talks about threshold criteria for whether a product stewardship proposal makes sense and whether or not there should be some sort of intervention. Here you've got a nice sort of logic flow chart there. Has that logic flow chart been applied to things like plastic bags for example?

MS HARWOOD: I understand - and I confess it's before my time - that the decision to take action in relation to plastic bags was considered by EPHC in the light of the things that drive their decisions on whether to act on waste. Then there's been a sort of process in train since then, seeking to develop an arrangement to deal with the plastic bag issue, which is moving slowly forwards.

MS AYLIFFE: We do have a waste working group underpinning the EPHC that has certainly developed a list of priority products that we need to deal with. They are routinely put through the criteria. But as we move forward to develop agreements or product stewardship schemes we actually ground truth that with more data, working with industry to actually make sure that we get the right mix. That includes a regulatory impact statement of all the options, from do nothing through to full regulation and co-reg in the middle and all the options also underpinning co-reg. So we have that discipline. We start with the filter criteria. We've identified the products we need to work on, and then we put them through a rigorous test I guess, in consultation with industry - never without, but with industry.

MR WEICKHARDT: I don't know whether I've read this accurately but I understand there is some sort of review point on plastic bags coming up - - -

MS AYLIFFE: That's right.

MR WEICKHARDT: - - - as to whether or not they've met their target. So will there be a sort of a RIS-type approach there in terms of considering whether or not any more action is called for?

MS AYLIFFE: Yes, at the moment officials are working on a RIS, underpinned by some economic modelling that was done by Allens. We haven't yet had the report on whether they're met their target yet. That's due I think at the end of this month - Paul?

MR BAINTON: Yes, that's right.

MS AYLIFFE: Yes, so that report and the draft RIS will go to ministers in June.

MR BAINTON: We're still trying to fill in the details. We're doing some specific research in terms of the impact on small business in Australia, the plastic bags manufacturers. So that is really still a work in progress, but the aim is to get to June - - -

MR WEICKHARDT: But people also look at alternatives, and when plastic bags aren't provided what do people do as an alternate - - -

MS HARWOOD: Yes, of course.

MR WEICKHARDT: - - - and the costs and benefits of that.

MR BAINTON: And the costs and benefits to the economy at a broad level, as well as specific company level. As you can imagine - well, as we mentioned before - that one of the biggest challenges is to actually value the environmental harm. That's why we're very keen to try and push the barriers, such as for example the work that Nolan-ITU have done in the past, to understand that better, to really grapple with that issue so that these regulatory impact statements can be prepared in a more robust and comprehensive way.

MR WEICKHARDT: We've seen multitudinous examples in this inquiry so far of where one government action taken for good reason, produces an outcome somewhere else that perhaps other people don't like. You know, the classic case of cars producing today - modern cars producing more shredder flock because there's more plastics in cars. Why is there more plastics in cars? Well, one reason is government set fuel economy standards that drove up the amount of plastic in cars. So I'm sure the plastic bags example will provide some interesting examples of, well,

it might be good from that point of view to do that but does something else bulge out over here that has a less desirable consequence.

On product stewardship, there have been a number of cases and some of look to have developed well. The case study on tyres looks like a good example. As you might appreciate, there are concerns by quite a few people in industry that some of states - as you suggested, it's within their rights. But some of the states are sort of making noises that at a national level this all goes far too slowly and, you know, "We'll just do our own thing." Is your view that anything could be done to make the national approach here work more efficiently, to avoid the states sort of risking dashing off doing their own thing?

MS HARWOOD: Well, it's a resource intensive process to work through each of these - you know, each product stream that we're working on. So to do it well and to do the analyses that we were just talking about, in terms of assessing all the alternative ways of treating the problem and the consequences of those and working out the most effective way of doing it, takes time. Also, getting agreement takes time, in terms of within and beyond industry in terms of what's feasible. So there's a certain pace that that can occur at and I don't know that it's necessarily sensible or possible to try and fast-track it, because you really do need to build quite deep agreement for a national scheme to be worth doing.

MR WEICKHARDT: Yes.

MS HARWOOD: So I guess we're just trying to reconcile the speed at which we can work that with our colleagues from the states and industry, with whatever imperatives arise in particular state jurisdictions for immediate action. It's also feasible, even if a particular state did take action, that subsequently a national scheme could be harmonised and things could return to a nationally harmonised basis. So I guess that's just the way things sit.

MR WEICKHARDT: Yes. You portrayed quite a number of these product stewardship schemes as voluntary, you know, and coming from an industry that I think suggested that it would voluntarily get into these - some industry proponents have put it to us that governments sort of portray these things as voluntary, but it's only after they've been threatened at the point of the gun that, "Here's the lesser evil. If you don't do this, we'll do something even more extreme." Do you think the system is working reasonably effectively with industry?

MS HARWOOD: In terms of the development of the schemes?

MR WEICKHARDT: Yes, and again on a proper risk basis, because again some people sort of say here's one state, and they've got a list of products of concern - in

inverted commas - and they said there's been no substantiation of why they're products of concern, and once they're listed as a product of concern, it's impossible to get them off, so they say. Do you think that this is a worry or not?

MS HARWOOD: I think at the national level, quite a bit of work goes in to making sure that the attention is being given to sectors where action is worthwhile - like, where you need national action and where there is an environmental issue to address. In terms the "did they jump or were they pushed" issue, I think that in many cases, there will have been an issue identified in terms of environmental impact and something - some serious environmental issue that needs to be addressed, and companies will judge that acting on a voluntary basis is going to be more feasible and manageable for them. They can come up with what they consider is a more sensible outcome to achieve a good effect by moving voluntarily rather than being subject to regulation.

But there is an incentive there. If they can see pressure for regulation coming down the track, then it's their choice if they want to respond earlier and bring a voluntary scheme together.

MR WEICKHARDT: Okay. Just forgive me a moment. In the time we've got available, I want to make sure I cover the critical points or at least the points that I'd highlighted. You quote a couple of case studies - just I flicked though here - that illustrate one point, and your case study on gas cylinders is a classic case in point I think of issues where the community is really saying, "We've got a problem here and we've been to a couple of MRFs and AWTs where an alarming number of these gas cylinders are recovered from the general waste bin," and council say, "We don't want people putting them in the waste bin." My question to them is where do you want them to put them and what should they do? It doesn't provide an answer that's particularly friendly to the householder, and I think in those circumstances, the risk is if you don't give a householder a solution, they're going to do what's easiest, which is throw it in the wheelie bin because it fits in the wheelie bin.

MS HARWOOD: And it's an example of in many cases, if there is improved information to householders to understand the impacts of dealing with wastes in particular ways, at least some of them will be more likely to act in a responsible direction. So it's working through what the options would be for, say, seeking to deal with that gas cylinder problem, different ways of tackling the problem, and information to consumers could be an important part of that.

MR WEICKHARDT: One suggestion that's been made to us that seems to have a lot of sense is that products like that have on them compulsorily some sort of 1800 phone number so you can ring up and find out, "What should I do with this?" because it's all very well to say to householders, "This is a problem. I don't want you

to dispose of it in this way," but unless you provide them an option of, "This is what you can deal with it safely," that's reasonably easy for them to comply with, you're not going to get a good outcome I don't think.

MS HARWOOD: That's right. It's working through which is the best way of dealing with it.

MR WEICKHARDT: Yes.

MS AYLIFFE: We're certainly in the process at the moment of discussions with Planet Ark about a recycling hotline which will bring those things together.

MR WEICKHARDT: Yes. That certainly seems to me to have a lot of merit. One of the issues that I guess we're still trying to get our mind around - and of course your work engaging Hyder and the work you cited in your submission highlights this, and that is the international sort of comparisons and benchmarks that are provided, and it seems to be an area that's particularly fraught. People quote a number of tonnes used by one society versus another, and you then bury under the Australian statistics and find they include all the tonnes we move in exporting raw materials or removing overfill.

I guess you've highlighted, and I think others have highlighted, that we need more data to understand all this and yet collecting the data is not costless. Do you have a sort of a group working with the EPHC to try to target where the highest priorities are for assembling more data and where we'll get best cost benefit from that?

MR BAINTON: It's a difficult issue, and we have raised this with the states before. I think where we've come out at is that we do need some data - high, top-level data - to report some performance within for example the OECD reports regularly, and we do need to capture some data that is not going to be misquoted or misused. It is robust. For example, some groups may misuse the data that was put on the table almost a decade ago now. We don't have data to replace that. So it's quite important to get that top-level data, and secondly it's important in developing product stewardship schemes that we know - and it's part of defining the problem. You've got to know what the scope of the problem is. You need data to define that, but also you need data to evaluate and to monitor product stewardship schemes and policies that are put in place.

So that's where we've come to at this stage in terms of the data. But there is a need, as the submission points out, for better data to inform the community who press governments for action, to inform the governments, but also to help to inform industry. We're not looking at a comprehensive suite of data. It's very much - within

itself, data needs to be generated according to the relative costs and benefits and the value of that data. So it's a pragmatic approach to data.

MR WEICKHARDT: Thank you. You raised a number - and other people have raised the whole issue of littering and the degree to which that intersects with waste policy. One issue that was put rather plaintively to us by the Clean Up Australia people was that they feel that government really don't support Clean Up Australia - and I don't think I'm doing it an injustice - really at all or very little, and yet they said when you look at things, other measures to tackle litter, whether they're better enforcement or whether they're container deposit legislation or whatever, they're all quite expensive. Has the federal government looked at what the most cost-effective way of tackling or improving the litter issue is in Australia?

MR BAINTON: Litter is very much a state issue. It's not really a cop-out, but it very much is a state issue. The answer is no. We've just completed - having said that, we just completed a national survey. Keep Australia Beautiful Council has undertaken a national survey, what they a national litter audit. They used to undertake these, and we've just helped them to reinstate those surveys.

Clean Up Australia - we've worked very closely with Clean Up Australia on the plastic bag issue and in fact have given them some significant support financially over the last four years. Clean Up Australia Day is very much a volunteer driven initiative, and my understanding is that Clean Up Australia derives a lot of support because of the voluntary nature of the program. So I guess it's a balance between that and having a government-funded program.

MR WEICKHARDT: Okay. Packaging is clearly a central point of concern in the litter area. We've got the National Packaging Covenant mark II. In terms of the targets that were set there, again do you think they went through an appropriate RIS process of looking at the costs and the benefits of achieving those particular targets?

MS HARWOOD: There was certainly a RIS done.

MR BAINTON: We went through an exhaustive process, and I think I use that word in every meaning of the sense of the word. We did go through the standard COAG RIS processes. I think in the end it came down to governments hearing the information or seeing the information that was put on the table and making the decision, taking into account that information, and that's exactly what a RIS is supposed to do, inform government decision-making.

The targets entered into the arena of what I guess we'll call the negotiation, but we did go through a very extensive process of evaluating the first covenant. There were three evaluations undertaken, one national evaluation, another one undertaken

by local government, and a further evaluation undertaken by an environment group, and those evaluations were then fed into the regulatory impact assessment process, and at the end of the day, it came down to, as I said, a negotiation on the level of recycling. It was partly reflected by society's view.

MR WEICKHARDT: I haven't delved into it in detail, but it looks a bit, from the material we've had submitted to us, that everyone has agreed that there wasn't enough data to really be able to make a proper evaluation. So this was a sort of finger in the air sort of let's set a target, and I guess against an ideal process of trying to evaluate the costs and the benefits of achieving that target, it seems to leave something to be desired.

MR BAINTON: That's why it's very important to try up-front in any product stewardship scheme to put in place data gathering at an appropriate level, and monitoring.

MS AYLIFFE: The new covenant will actually have much more detail of the action plan requirements and performance indicators. So we should be able to ground-truth the data that we have before us in the first covenant. We should be able to ground-truth that over the life of the next covenant and make sure that we've got the targets right.

MR WEICKHARDT: In that area of packaging, will this follow your total lifestyle - sort of lifecycle approach - not lifestyle, lifecycle.

MR BAINTON: Lifestyle is part of the problem.

MR WEICKHARDT: Yes, but it seems from some of the analysis I've seen - indeed you quote a case study on design of different milk containers which at simplistic level suggest that a one-kilogram bag of milk powder would be the best outcome. Without knowing an awful lot about this, it would suggest to me somebody who has done the analysis hasn't thought about what's the energy costs of actually making dried milk as to fresh milk and a few other factors like that.

The issue with packaging as the Packaging Council point out is that the packaging of a certain sort of robustness is required to avoid waste. So focusing on waste from the packaging alone would appear to be taking too narrow a view of the picture we're working on.

MR BAINTON: The inclusion of that case study wasn't intended to undermine the lifecycle assessment process, and that is going to be a very strong part of the new packaging covenant, and indeed that's one of the values of the National Packaging Covenant, it brings the different parties around the table to grapple with the issues.

Out of the first covenant - I might say that that first covenant started in 1999, but there was a very long lead-up to that process, and that was the end result of that discussion, that negotiation process that we had everybody around the table.

The discussions over plastic bags was facilitated, was helped by having all of the players around the table. That's one of the intangible benefits of the first phase of the National Packaging Covenant. Then next phase, we will have much better information to really test the value of the covenant and to, as Lynden said, ground-truth the impact of the covenant.

MR WEICKHARDT: I know we're out of time, but let me just say your concluding remarks on actions for Australian government where you note that:

> Resources available to governments and indeed to a society to deal with waste management and resource efficiency and the issues are limited. So it's vital, particularly for national issues, that efforts be focused on areas of genuine high priority, interventions are strongly grounded and a thorough assessment of the problems and the costs and the benefits of the options available for dealing with them.

We would say Eureka. Absolutely right. We will be in heated agreement with that. So I hope that our deliberations can help us continue to focus on that as an outcome, and thank you very much indeed for your submission which we will continue to read and try and digest.

MS HARWOOD: Thank you.

MR WEICKHARDT: We're going to adjourn now and resume at 1.30.

MR WEICKHARDT: We'll resume the public hearing, and our next participant is John Gertsakis from the Consumer Electronic Suppliers Association and Product Stewardship Australia, and if you could just introduce yourself and your position and on whose behalf you're appearing.

MR GERTSAKIS: Sure. My name is John Gertsakis. I'm representing Product Stewardship Australia and the Consumer Electronic Suppliers Association today. I'm the part-time executive officer for Product Stewardship Australia. In this instance it was decided that a joint submission to the inquiry would be prepared. In terms of the process - - -

MR WEICKHARDT: If you'd like to make some introductory comments, they'd be welcome.

MR GERTSAKIS: The Consumer Electronic Suppliers Association is an industry association that represents a range of consumer electronics importers, primarily importers; companies such as Sharp and Sanyo and Philips coming from countries such as Japan, Korea, parts of Europe. The association - I'll refer to it as CESA - deals with a range of issues, both environmental and non-environmental. A few years back, CESA decided to run a TV recycling pilot project in Melbourne's eastern metropolitan suburbs.

There was an opportunity there in terms of interest and support from Eco Recycle Victoria at the time, and also interest from the member companies to start exploring what it means to try and collect and process end-of-life televisions. So that pilot took place a few years ago and the aim was to explore and to gather some data and see how the process works, and look at which other parties and stakeholders would be interested in the process.

One of the key recommendations out of that project and out of that process was the need to really establish a separate organisation to deal with these sorts of product lifecycle management issues or product stewardship issues. There was a view that it was for such a small association such as CESA to deal with developing and running a national take-back and recycling scheme was just too much and not appropriate. So there was this feeling that set up a separate organisation, have as its members many of the same companies that might belong to CESA but also be inclusive of other companies and organisations to get involved was seen as an important area of future activity.

Out of that process, Product Stewardship Australia was born. That's the fulfilment in terms of that particular recommendation. PSA was established in late 2004, early 2005, and it has as its members the main TV brands that are also members of CESA. So it has 11 members - 12 members at the moment, I think

we've just had another member join. Again the aim is to have these companies come together to try and further develop in detail what a national TV collection and recycling and education scheme would look like and how it would operate.

Concurrently there's been growing interest and pressure and demand from government, whether it's at a federal level or a state level, and interest from some local government authorities, for industry to take a greater responsibility for some of these waste streams. So it's part born out of some of these companies wanting to be progressive and start looking at these issues and take some action, as well as clearly hearing the signals from governments about needing to do something as well.

The last year there have been two key areas of activity for PSA. One is the establishment and trying to attract more members, in order to secure resources and do the work that has to be done to develop the scheme. That's been an ongoing process, as well as the other key part being engaging with the Environmental Protection and Heritage Council processes on e-waste and looking at how that scheme should be developed and time frames associated with that. So there have been two key activities for the association: establishment and coming up with the scheme.

A key part of the thinking with both CESA and the members that have transferred across has been this idea of a co-regulatory approach, a shared product responsibility approach, where industry is prepared to take on greater responsibilities, significantly more responsibilities than it has to date with end of life collection and recycling, provided that other stakeholders also take on considerably more, or take on some responsibilities that are relevant to them.

So that equates for the need for some sort of safety net regulation, which is something that PSA and CESA have been promoting and requesting as part of the process: that the companies that are members of this association would look at developing and funding part of the scheme if government gets involved with developing and enforcing some sort of safety net regulation to deal with those companies that don't join PSA and might be called free riders. So that has been a key part of the process.

So we've been working with the relevant government representatives through the EPHC processing, in talking through that process concurrently. Whilst we are working out how our scheme might work and might be funded, we're also feeding into and working with the EPHC on how a NEPM might be developed and how that is in harmony with what we're trying to achieve. That's a key concern for the PSA member companies: is that if they invest money that they're going to see a level playing field. They don't want to see any competitive disadvantage because they're going to invest in a national scheme and other companies mightn't. So that has been

a very important part of how we keep moving forward. That's why we very much engage with the EPHC process and the importance of a national approach in trying to keep moving forwards.

At this very moment we're in the process of drafting a product stewardship agreement, which is one of the outputs of that EPHC process. That agreement is something which at a higher level sets out several commitments in terms of what PSA would do in terms of collection targets and recycling materials recovery targets, some minimum recycling standards, how we might - you know, issues to do with governments and data collection and reporting and things like this. So we're doing that at this very moment; drafting that agreement and getting ready to submit that into the EPHC system. So that's where we're at.

We're eager to see a national program, a national scheme. We've done a pilot. We've gathered some information. We don't want to keep doing pilots, even though they would be useful in different areas. We do want to see the development and the delivery of a permanent national scheme. We think it's realistic that that scheme be phased. We haven't said that on day 1 of a NEPM being enacted that we will start collecting TVs across the country. We're talking about commencing with Melbourne and Sydney and then in a certain time frame moving that to other urban cities and then to rural and regional areas and more remote areas. So we have some thoughts on that time frame for moving across cities and into non-urban areas.

With that goes a whole lot of other activity around investigating and reviewing different collection models and ideas, different processing methods and different service providers and how that will work, trying to over time gather more data and get more accuracy around the environmental and economic pros and cons of different schemes and different approaches.

So we see that phasing approach in what we're planning and trying to do as really important, and also realistic, given the economic issues associated with starting to collect and pay for television recovery in two big cities versus doing that across the whole country. The costs associated with collecting and processing televisions are high. The return in terms of any recovered materials and markets for those is a tiny offset, a minor offset. So the aim is to try and do things in a realistic way that doesn't undermine it at any point and also provides information that allows us to improve what we're doing over time.

So that's in essence who we are and where we come from. TVs is the starting point. We've set up the Product Stewardship Australia. They're generally sort of referred to as producer responsibility organisations. It's not new, what we're doing here. They're modelled on similar organisations in North America and Europe. It's something which we've created to be inclusive of other e-waste categories as time

goes by, other products that the same members or new prospective members are importing into the country, being able to develop additional programs and schemes to deal with different products that those members bring in.

So we're trying to be I suppose as systematic as we can and as permanent as we can in our actions and planning, so that we end up with a scheme that survives and isn't undermined by the distractions sometimes that come with short-term events or pilot projects and things like this. That's where we're at, at the moment. We've answered some questions. We're in the process of trying to identify other key issues, where we talk to the service providers, we meet the recyclers. We've met with some local government authorities. We're going through a process, as much as our resources allow, of talking to others as to how our scheme might work up and be developed.

The hope is and the plan is that as the NEPM develops, as the EPHC and government representatives have more and more detail from us, that the NEPM will work in harmony with what we're trying to achieve and when that NEPM is very close or ready to be put in place that we are also collection and recycling and education ready, in terms of our scheme, at least starting with Melbourne and Sydney. So that's the plan. You know, to date it has been one very much of a sort of collaborative approach or cooperative approach with the EPHC process. We see that as essential in terms of trying to get a national outcome, a uniform approach.

There are also some very strong views among members and some of their thinking around the role of the customs service, given that most of the products - most TVs are imported assembled. It may be one very smart way, a very efficient way of dealing with identifying which companies or importers are party to an approved scheme and thus being able to monitor and enforce - identify who are free riders, who aren't et cetera and be able to deal with that before product comes into the marketplace and gets distributed and then rely on individual jurisdictions to enforce.

Members are very concerned about this issue of free riders simply getting away with it. It's an industry that's volatile in terms of the retail market and margins and all the rest of it, and so trying to be I suppose effective in suggesting ideas for how enforcement might work as well, in terms of getting everyone to either participate in the PSA scheme or create schemes of their own. But it's certainly not an organisation that is just members of CESA. As I've said, it's one which we've designed to be inclusive, and companies that are not members of any other association but bring in TVs are welcome to have discussions and apply to join and become party to the scheme that we're working up an input on that scheme.

MR WEICKHARDT: Thank you very much indeed. Just as a starter, can you tell me - and I'm sorry to ask you to help educate me, but what is it about television sets

that puts them up as being products of concern about which governments and the industry agree there should be some sort of special scheme?

MR GERTSAKIS: My understanding is it's to do with the cathode ray tube, it's to do with the television tube, and the amount of lead that's contained in that tube, and trying to recover, control, effectively manage that so it doesn't end up in landfill, that that material is captured and processed and doesn't cause future problems in terms of the escape of lead into the ecosystem.

MR WEICKHARDT: Is that leaching of lead from a TV set - cathode ray tube - in landfill an identified problem, an issue that has occurred in history?

MR GERTSAKIS: To my knowledge there are studies overseas that highlight that it's a potential problem and there are studies that highlight that it's not a problem. The extent to which there is scientific research in Australia on lead from cathode ray tubes I have not seen any comprehensive detail in terms of that sort of stuff. But the general consensus in terms of televisions I think it would be fair to say, it's the lead in the CRTs. That's in terms of toxicity, hazardous substances.

There is agreement from industry side that we need to pursue materials efficiency , we need to look at recovering resources, we need to look at using the materials more efficiently that are there, and if there are opportunities to recover those at end of life and reprocess those and we have them as input to new manufacturing, that's seen as an important aspect. But the driver really is this issue of diverting the tube away from landfill, capturing it, covering it, safely processing it, making sure that it doesn't pose any future ecological problems.

MR WEICKHARDT: I'm interested in that, and I assume that your members would have access to all the research, and I assume you must have agreed with this because you think there is a risk, because one person put it to us, not citing any background for this opinion, but they said the lead is all immobilised in the glass and highly unlikely to leach out. So why is all this being done? I assume the fact that you've agreed to this product stewardship scheme is that you accept that it is a real risk.

MR GERTSAKIS: With CRTs, it is reflected, given the parent company's position in most cases of what they're doing. All of these companies - nearly all of them are operating in much bigger markets, and the EU where there are more advanced stages of policy and regulation dealing with this, and they're all working towards reducing certain substances or phasing them out et cetera. So its not something that's just done in isolation here by the importers or the subsidiaries of those companies. It's something which is in terms of those other key markets, the parent companies are working.

In terms of specific local research, I suppose sometimes that's where we do see a gap on the impacts associated. To say that is not to say we disagree or object. It's more about it could almost strengthen the whole argument for the need for product stewardship, to see more comprehensive scientific research on what does happen to CRTs in landfill or other types of end-of-life electronic waste going to landfill for that matter. So it's more that issue that we've raised in our submission, it is about having good information to underpin the ongoing planning and development, to underpin the arguments made to other stakeholders, to underpin the argument back to - through the management system about the need to invest and spend on dealing with this issue through a shared product responsibility approach.

MR WEICKHARDT: Given the fact that you say most of your members will be overseas companies and most of those members will have experience of some sort of product stewardship scheme or extended producer responsibility scheme operating in at least some of the markets they service, why does it take so long for a scheme to be agreed and set up in Australia? From a simplistic point of view, I would have thought that your members who service multinational markets could all be in heated agreement that, "The scheme in country X is the best scheme. Don't go for scheme Y. That's terrible, and therefore with a bit of local tweaking, we can just adapt that scheme."

MR GERTSAKIS: Sure. I think there are a number of factors. There are a number of different sort of responses to that question. One firstly I think is the assumption that the overseas schemes have developed very quickly. The EU directive on WEEE and ROHS has been a long time coming in terms of the research and the development. So I think it's fair to note that the development of those sorts of policies and regulations overseas has taken a considerable period of time.

MR WEICKHARDT: That's true of lots of things, but if a pharmaceutical takes 15 years to go from research to registration, we don't repeat that process here. We import it and we license it here and we short-track that process. Do we have to go through the whole pain that Europe and others have gone through or can't we just imitate?

MR GERTSAKIS: I think we can imitate. I think we don't also have to go through the same pain. I think you raised - it's an interesting issue in terms of the pharmaceutical industry possibly and registration, and complexities to do with regulation. I think the other part which I see in addition to the first point I made about taking overseas initiatives, but the other part is that there is simply not the regulatory or policy drivers in this country that those overseas jurisdictions have.

It's getting stronger. There are more signals coming out that government has expectations about what industry should do, and if they don't meet those, then they will regulate. But from where I sit, I think that's probably the single most significant barrier to industry-wide uptake of product stewardship in some parts of the electronics industry; the absence of a mandated requirement to collect and recycle and deal with the products.

MR WEICKHARDT: Would you prefer that?

MR GERTSAKIS: We're going for a co-regulatory approach. What we're engaging with at the moment is we're developing a scheme on a voluntary basis, but with the requirement that government will play their role and deal with those free riders. So we think there's great value in us as an industry group developing part of the solution ourselves and a part of it that we think makes sense, and then also working with government and having government take a responsibility there on the regulatory side and providing that backstop.

MR WEICKHARDT: Does any country around the world have a similar sort of co-regulatory approach to TV sets?

MR GERTSAKIS: The Canadians from what I'm gathering are looking at the idea of similar sort of co-regulatory aspects where there are backstops. New Zealand is in the process at the moment of looking for some waste streams that are a similar process to co-regulation, but we felt that that's a system that there is some precedent in terms of the existence of national environment protection measures in the country, and we've put forward some ideas of how we think that could work effectively.

MR WEICKHARDT: They're not in existence there yet, in Canada or New Zealand?

MR GERTSAKIS: I'm not sure exactly where they're at at the moment. No, New Zealand certainly isn't, and I think if you look city by city or province by province, there might be things at different stages in Canada. I think Ontario have been doing interesting things in terms of how that might work. But ours is very much the idea of having intervening in that or developing a solution where it makes sense for us to be involved and having some say over the fund that we collect from member companies and how that money is expended, and managing those funds, and then working with government in terms of how they - in terms of having our scheme approved and agreed to, but also having government play its role if this issue is seen as a priority and significant in enforcing the safety net that might be developed and making sure that there is an industry-wide response, not piecemeal sort of limited collection events and isolated activities.

There is a real view amongst the PSA members that a collective approach makes sense and an industry-wide approach makes sense environmentally and economically.

MR WEICKHARDT: A merit of product stewardship schemes is often cited as being that manufacturers have to think through the end-of-life disposal issues when they are thinking about design, and they take a total lifecycle approach to costs because they're involved through the product stewardship schemes in the disposal, and this has some influence on the designers.

In the case of Australia, who I assume imports almost all the TVs that we use, I assume that the degree to which any product stewardship scheme in Australia is likely to influence international design is fairly limited.

MR GERTSAKIS: Very limited. It's not to say that the PSA wouldn't regularly and clearly report back to research and design product development groups within head office, but it's just a tiny part of the global market, and the drivers already exist in terms of similar regulation impulses and requirements in Europe. The EU has become very much the key driver in terms of product development and design for an environmental sustainable product.

If you look closely now or you inquire now, there's already product coming into the Australian market where you may read on the package that it is ROHS compliant or restriction of hazardous substances compliant according to the EU directive, or moving in that direction et cetera. So they're the requirements that are driving those design changes which on one hand we can say hopefully will be a benefit in terms of if all the design and production is dealing with that, then hopefully we will see that product also coming to Australia by default. But I think time will tell as to what exactly happens there.

I know there's been the start of some productive discussions at a Commonwealth level to the Department of Environment and Heritage on this issue and how it can be used - how Australia can harmonise with these sorts of requirements in the EU to the benefit of environmental outcomes in Australia and consumer information and all the rest of it. So I think that's a positive sign.

MR WEICKHARDT: That's certainly mentioned by our last participant. Do you see a risk that if Australia has these product stewardship schemes that the industry will be dealing with some product that complies with this EU directive and some that doesn't that imposes much greater environmental threats?

MR GERTSAKIS: It may. That's why I say time will tell. I think it may. It depends on again what the regulatory requirements are on what information has to be

disclosed, product declarations et cetera. If there's not actually a signal to importers, I suspect that the same sort of outcomes are expected here. That may be a possibility. But time will tell. I can't answer either way, and thus the importance, if that is seen as a concern, an issue, to plan for it and have the right response, and I think the process that's commenced at a Commonwealth level makes sense. Having that discussion makes sense.

We had a meeting just last week with PSA and CESA members that touched on these issues, and we're putting together a more detailed picture of what products they're bringing in and where does it sit with some of these requirements so that we have a better feel for the material content and how it relates to ROHS or doesn't et cetera. So it's certainly on the agenda.

MR WEICKHARDT: In practice, what do you anticipate - perhaps you can just talk me through. How do you actually see this scheme working? There'll be funds collected from the consumer. Presumably when they buy a TV set, there'll be some sort of levy or price premium that will apply.

MR GERTSAKIS: Our concept to date has been about collecting those funds or collecting some sort of environmental contribution from the members to the scheme, and that in effect or part of that may be passed on to retailers and the consumers et cetera. So that's the - - -

MR WEICKHARDT: I would have thought that's pretty inevitable.

MR GERTSAKIS: It will depend on the particular companies and how successful or not they are in the marketplace and how they want to deal with some of those issues and what the approved scheme requirements might be with the government in terms of how transparent or not some of that collection will have to be.

MR WEICKHARDT: Presumably the amount you want to collect from members will be dependent upon how many TVs they sell, will it?

MR GERTSAKIS: It will be dependent, yes. It will be a percentage of FOB or it might be an amount per unit, and that's what we're in the midst of in terms of developing our product stewardship agreement, working out how that would be calculated in a way that's fair and equitable and given small importers, large importers and all the rest of it. But that's what would then go into a fund that PSA would use to administer the organisation, appoint contracts to recover, collect, recycle, run community education and information campaigns.

MR WEICKHARDT: Sorry, can you just break that up a bit for me then. Your idea is that you would have contractors who would actually come and collect a

product from the household?

MR GERTSAKIS: Not from the household, no. We're looking to as much as possible collect from points where there is product consolidated. Whether that is through existing transfer stations or through retailers or through other organisations that we're yet to partner with, the aim is to try and gather as much product in fewer locations and collect from there. The aim is not to collect from individual householders. The costs associated with doing that would be exorbitant and not appropriate.

MR WEICKHARDT: How would you present a householder or encourage a householder not to, if the TV fits in their wheelie bin, just to throw it in their wheelie bin?

MR GERTSAKIS: We'd work with other organisations such as local government to try and get the message across that televisions shouldn't end up in there, and I think that's partly an educational process over time through improving information about hard waste collections and recovery opportunities at a local level to not do that. I mean, it's no different to anything that you receive now about hard waste collections that clearly tells you what you can and can't put out, and I think that's just a function of time that that education process and information process has to get out there and has to improve, and at the same time, PSA has to work together with the range of stakeholders to make sure that as we're directing consumers away from the particular method of disposal that there is a relatively convenient opportunity for them to do something else with it.

A lot of the research or the most recent piece of research that's been done shows that televisions generally don't end up in wheelie bins. They're going into the sort of hard waste collection or being dropped off at transfer stations. So it's usually the smaller electronic appliances that do end up in wheelie bins, because they're small and light enough to do so. But televisions tend not to end up there unless - I'm sure there are exceptions, and portables and smaller ones. But the aim would be the right information going out there, being disseminated by us and with others as well as them backing that up with the options there for consumers to be able to do the right thing if we're directing them away from that method of disposal.

MR WEICKHARDT: So having collected them, what actually do you envisage then happening to the television set? What is being done internationally? What's best practice in terms of both I suppose deconstructing, recycling or making safe?

MR GERTSAKIS: I'm not sure yet whether there is a clear position on what's best practice. There are a number of methods employed in different places all the way through from more meticulous disassembly of the product and separating the front

glass, which doesn't have lead in it, from the side glass and doing different things with those different types of glass products, doing different things with different materials, whether it's plastic housings or otherwise.

Our plan is to look to what the industry is offering or can offer in Australia, and also through our tendering process I suppose to look at trialing different processing methods and disassembly methods in different parts of Australia and reviewing that information to see how it's coming up in terms of the environmental pros and cons and the economic pros and cons. So as I said, more comprehensive disassembly and separating material types and components through to cathode ray tubes being used as a fluxing agent in the smelters apparently, and I think Zinefex are in the business of being able to take some of that product and deal with it that way.

So one of the problems or one of the barriers that's sometimes cited is what happens to the plastic housings on televisions, that they have brominated flame retardants in them and that poses a barrier to plastics recycling and all the rest of it. We're seeing more and more solutions to that emerge, even locally. So we think that as there are more recyclers, more players in the market trying different methods - and if we have some stringent requirements and minimum recycling standards and how to deal with residuals and all the rest of it - we will again over the period of the initial time frame of the program start to work out where is the best environmental outcome at the right cost et cetera.

MR WEICKHARDT: What's happening in Europe?

MR GERTSAKIS: In Europe there's a mix of again going into the smelting process as well as processing cathode ray tubes to a degree where some of that glass can be used in the manufacture of new glass, and apparently it's claimed that some of that can go into the production of new cathode ray tubes and other applications as well down the value chain. So there's a mix in Europe as well, and some of those same players are here - that are operating in Europe are operating here. Some cathode ray tubes and some of the pilots and trials are being sent to Europe for processing, and that may be an option possibly for PSA, too.

MR WEICKHARDT: Is there anything of significant recyclable value inside an old television set where you can get real value by - or is it all cost?

MR GERTSAKIS: There would be some value in circuit boards, copper and cord sets. There would be some value there. I wouldn't say it would be significant, and some of that is reducing over time and it depends on the vintage of the product. But overall the value is minor, is very small.

MR WEICKHARDT: What about new technology TV sets that don't have a

cathode ray tube; a plasma screen or an LCD screen? Is there an environmental risk with those sort of products?

MR GERTSAKIS: There may be, there may not be. We'll have to work with the parent companies. PSA will have to work with their parent companies in terms of really understanding what's in LCD screens and plasma screens. They have to understand where the recyclers are at and their knowledge of being able to process some of these new technologies. In terms of lead, the concern about lead doesn't exist to the same degree with those other technologies. There may be other substances and they'll have to be dealt with.

But our scheme is - even though CRTs is the driver, we're eager to create a scheme that is or so inclusive of television product type. We don't want to create confusion in the marketplace. Our plan at this stage, our thinking, subject to how safety net regulations develop and all the rest of it, is that we would want to accept all television product from the consumer and process it. So that is an issue we will have to deal with probably sooner rather than later; how to deal with some of the new technologies.

MR WEICKHARDT: What about orphan products? You no doubt will probably collect some old clunked-out TV set that's made by a manufacturer that's no longer in existence. Has the industry worked out what's a fair and equitable way of dealing with that sort of thing?

MR GERTSAKIS: To some degree, our calls for safety net regulation is part of that process. We want to see that that's put in place. That will give some comfort to the association that there'll be a bit more equity there. But that's an issue that still needs ongoing attention. Our thinking again to date has been that we want to collect all brands, and whether they are members of PSA or not, we need to put a scheme in place that does that and be assured that the safety net is a further incentive to potentially future orphan product that those organisations are directed to PSA or required to set up their own schemes to start to deal with that issue.

It's something which probably needs to be sector-wide I think. This issue of orphan product historically needs to be dealt with in an intelligent way that doesn't open up gaps or create exemptions or concessions in a way that some e-waste categories, orphan product can be dealt with, some can't et cetera. That's one of the challenges I think with electronic waste and importers that come and go and things like that. But at this point in time, subject to how our scheme firms up and develops and how the NEPM development process further develops, we're still eager to see how we can deal with all product, whether they are brands that are members of PSA or not.

MR WEICKHARDT: Again you read a lot about product stewardship schemes having the advantage that the consumer gets some sort of price signal about what it might cost to dispose of a product, and therefore that presumably has some feedback to the consumer about buying products that are difficult to dispose of. But I understand the scheme that you are likely to favour is some sort of flat amount per TV applied, whereas if you're trying to send a consumer a signal that you buy one of these humungous TVs with a huge amount of lead in it, that's going to cost a hell of a lot, and if you buy a miniature LCD screen it's not going to cost very much. Have you thought about this issue of sending consumers price signals about the cost of disposal or the risks associated with disposal?

MR GERTSAKIS: Not so much an explicit price signal, but we've certainly seen great importance in, as the organisation continues to establish, to have well-crafted communications and education programs. We certainly see that it will be important to tell the story about e-waste and what the issues are and why they are issues and provide information, whether it's through point of sale or through our web site or through other channels.

So it might necessarily be through a price signal, but we're certainly committed to - and clearly stated - that area of consumer education as to what the issues are and why we're developing a scheme to take that product and work with others to process and recycle. We see that as essential. So that's a key part of our overall program and the future activities of PSA; that education and communications aspect. The degree to which we get in and we tell people what sized television they should buy because of the certain materials, we haven't dealt with.

MR WEICKHARDT: Does that happen anywhere else around the world, do you know?

MR GERTSAKIS: Not that I'm aware of, but I haven't done any specific literature review on that issue.

MR WEICKHARDT: Okay. What's the next cab off the rank in your view after televisions?

MR GERTSAKIS: I think that's an area that needs very careful thought and it also needs some clear direction from policy-makers as well as to why - whatever that product might be, why it's that product ecologically, socially, economically et cetera. So I think that that is something that we'll work with government on. I'd like to think that we can work with government to clearly and convincingly establish which is category 2 and 3 and 4 and 5 as time goes by.

MR WEICKHARDT: You sort of implied that - I hope I'm not misinterpreting

what you said, but I think you sort of implied that there's still debates about how big the risk is on TVs, but that most of your importer members have experience of one of these product stewardship schemes elsewhere in the world. So they sort of sound like they accepted the inevitability of one coming to Australia. If you follow that logic, where is the most pressure overseas after television sets on end-of-life electrical equipment?

MR GERTSAKIS: You can find a country or a jurisdiction no matter what you're looking for on that one. If you look in the EU, you can say it's virtually all electrical and electronic products. You can go to other places and you can see great emphasis on rechargeable batteries and nickel cadmium. So I think you'll find a spot that answers your question in a number of ways. Having said that, I think - and I think it's legitimate, are products that include in some way batteries, rechargeable batteries, whether the nickel cadmium or the newer technology. So I think products where there are other clearly identified toxic materials, hazardous substances, that they're the ones that will move up the agenda.

In terms of New South Wales' processes, they're talking about even more specific things like shredder flock or shredder residues from whitegoods and have asked industry to look at those areas. But in terms of PSA and CESA, I suspect that they could be some of the other areas; consumer electronics that include in some way rechargeable batteries, and also for some CESA members, for several of them, they're importers of whitegoods. So should the shredder residue issue or objective that New South Wales are interested in become a national priority, then we would look at that. But we would be very eager to see why that's an identified issue in detail and what the environmental reasons would be and the economic reasons would be in order to be able to move forward from that and work out what are the best solutions if that is agreed.

That argument isn't put up as we disagree with that particular e-waste category. We don't want to do anything about it. It's more about having good information that is the best you can possibly get for this geography for this part of the world, and the ecological consequences associated with the materials that come out of them and being able to make good decisions and about the sort of solutions that are relevant and the costs that are appropriate. We're certainly not putting it up as some sort of barrier to inaction. It's about good policy.

MR WEICKHARDT: All right. Last question from me: what sort of time line do you think will apply to getting a fully fledged and operating co-regulatory scheme for TVs up in Australia? Are we one year away, five years away, 10 years away?

MR GERTSAKIS: Look, I can tell you what I think is desirable but it matches in very much with the EPHC process and how we feed into that and what they're doing

with the development of the NEPM and how we to and fro, because they both have implications for each other. But the sort of time line that we're aware of, that what might be possible is - you know, if the NEPM comes into place at some stage during next year, middle of next year for argument's sake, that we would like to be collection and recycling ready and have our programs in place to start collecting in Sydney and/or Melbourne.

But it is very much tied to whether there is safety net regulation there that PSA members feel confident and comfortable with, and that enforcement will work and be very effective. It's not just about having the regulation on paper, but the members will invest their resources and funds if they're convinced that the enforcement associated with any safety net type regulation will be effective.

MR WEICKHARDT: Okay. Thank you very much indeed for your time.

MR GERTSAKIS: Thank you.

MR WEICKHARDT: We'll adjourn briefly, and the Building Products Innovation Council are next.

MR WEICKHARDT: Our next participant is the Building Products Innovation Council. Tony, if I could get you to introduce your role and name and responsibilities.

MR McDONALD: Thank you. Tony McDonald is my name. I'm the chief executive of the Building Products Innovation Council.

MR WEICKHARDT: Okay. Now, Tony, we received your submission but do you want to make some introductory remarks?

MR McDONALD: I might, if I could, please. For the purposes of informing the commission, the Building Products Innovation Council is a relatively new organisation that was formed to collectively represent building materials manufacturers. They had a single body representing them and there were certain regulatory issues happening on a more and more frequent basis. That drove them to get together and try and form a single focus for building materials, and that has turned out to be the Building Products Innovation Council. Our membership is actually listed on our web site but also I think we included a list of members in our submission. We did, at appendix A.

The basic tasks of the Building Products Innovation Council is to look at national consistency in building regulations through the Building Code of Australia; to ensure that assessment of sustainability of buildings is based on full life cycle assessment technologies; and thirdly to encourage third party product certification. I have addressed the BPIC submission in the first instance to some very general statements about why life cycle assessment is critical to any consideration of some of the particular questions raised by this inquiry. Then I've also answered where I could draw a direct link to building materials to some other questions posed by the discussion papers.

I think it's probably worth reiterating that we see that any assessment of the impact and the options and the policy responses that might come from this inquiry would demand a fairly detailed regulatory impact statement. That's where the full life cycle assessment issue comes into the fore. We see that a proper regulatory impact statement would ensure a measure of costs and benefits from particular responses; and from a materials perspective, looking at the waste generation or resource efficiency issues demands a consideration, otherwise you do have a flawed assessment in our view.

It's also important in a general sense that we do look at the building materials in an individual material perspective, not just as a collective. There's some data floating around on collective impacts of building materials but I think, particularly in terms of the concepts of EPR and product stewardship that you really do have

individual material responses, not a collective of building materials. That's another important point for our members.

So basically I think I'd like to let the submission stand for itself, and help the commission by undertaking any further particular research or investigation into the industry that they think is valuable to them, but to finally acknowledge that we, as building materials manufacturers, recognise there is a need for continual improvement. It is a difficult task, with the highly aggregated data that you've got to work with in this particular inquiry. But we have investigated some - at the broad level - concepts about addressing the issues raised here and costs are absolutely enormous at first pass. So we do have some very significant issues in terms of particular policy responses. That's why we hope that the commission's report actually draws on some experiences from the other states at the moment that are already looking at these issues, and also further extends the research available.

MR WEICKHARDT: Okay, thank you, Tony. What you say in terms of full life cycle analysis and looking at all the costs and the benefits and the risks makes a lot of sense. In the building area, what country around the world has done that best, do you think?

MR McDONALD: In terms of life cycle assessment data, they're driven by what's called a life cycle inventory. Australia's life cycle inventory is narrow in its coverage. We have pretty good inventories for steel, concrete, plastics and timber, but extending beyond that there is a paucity of data. In fact we're currently working on how we improve the data to drive proper environmental assessment for building materials. That's subject to another project that's actually being run by the Department of Environment and Heritage, concurrent with this inquiry as it turns out.

So in terms of what country has done the most or the best, if there is a best - and I'm probably not an expert in life cycle assessment to determine the best - but Europe is the leader of the pack by all stretch of imagination, particularly in plastics. We have a number of people in Australia who are promoting life cycle assessments. They're populating them with European and other internationally available life cycle inventory data, which we don't accept: that if you populate a steel life cycle assessment with an Eastern European steel mill data you will get a full result when you compare the material impact in Australia. Likewise for comparing glass furnace versus other technologies and emerging technologies: we have to keep updating this information to ensure that you get the right environmental outcome.

MR WEICKHARDT: Okay. So you think there is a risk that people are transplanting some data that's just not relevant to our situation?

MR McDONALD: We know they are, and in fact we have continual discussions

with them. The problem that we've got is that we're yet to be able to satisfy ourselves that the intellectual property in the data that these other people look at are already populating their life cycle assessment tools with. We can't protect the intellectual property to the satisfaction of the manufacturers at this stage. I want to make the point that whilst we don't accept the results are accurate, we do accept that they're trying to do the right thing. So it is a real complex issue that gets down to manufacturer level, and manufacturer to academic discussions about intellectual property, rather than industry association input. So that's the problem there.

MR WEICKHARDT: Now, you talk about some of the sort of efficiencies and inefficiencies of using materials on building sites. You almost start I think with the - I hope I'm not doing you an injustice - with a sort of bare building site, and yet commonly today you find that the starting place is an old building is pushed over before the new one starts. We've had a couple of people who have put to us that recovery and reuse and recycling out of old buildings is a real issue, because the builder or developer is typically in a mad rush to get the building started, and the demolition sort of starts and finishes under a lot of time pressure. People have said this is not the best way to optimise the recovery of material.

We had somebody from the timber recycling and timber recovery business in Queensland say they would have been able to recover a lot of good timber from many buildings had they known some time in advance that the building was about to be demolished. But they said they found it impossible to get advance notification of that from Brisbane City Council for example, and by the time the building has been pushed over with a bulldozer a lot of the value of recovery has been destroyed, and you've got a terrible I guess mixed mess of building rubble. Have you got any views on how that issue might be tackled or whether it's an issue so far as your member associations are concerned?

MR McDONALD: Look, it's probably not a direct issue to our member associations. We are primarily focused on new materials. However, there is a direct - as you would well know - relationship between the recovery price versus the virgin price. Steel is a good example of that. I think there probably is a point where a builder developer will automatically or intuitively know that his site has on it an existing building that the value of recovery of materials is worth waiting for, if I could put it that way, rather than jumping in and knocking it down for the sake of saving another week or two weeks probably, in terms of stripping it out and gaining the most reuse of those materials.

So I think there's a pretty direct relationship between the two options, but that's not something that we have specifically addressed in our forum. As I say, we're mainly into the new materials. So whilst we're conscious - except in some reinforcing steels. In fact there's a lot of recycled steel in that part of the industry.

MR WEICKHARDT: Well, you've sort of said that your position is towards encouragement of waste reduction practices, rather than penalisation of landfill. If you want to encourage reuse or waste reduction, surely your manufacturers of virgin materials have to take some sort of interest and responsibility for how the material is used at the end of its life and how it might be recovered.

MR McDONALD: There's so much between the provision of the material and the end of its life that is outside the manufacturer's control, that I don't necessarily agree with that statement as an absolute.

MR WEICKHARDT: So when I read your sentence:

> With respect to landfill, the BPIC position tends towards encouragement of waste reduction practices, rather than penalisation of landfill -

what is it that you're actually trying to encourage?

MR McDONALD: Well, what we're trying to encourage there is a more effective allocation of the costs of recovery, as opposed to the direction that a lot of people tend to say it should go, which is to incorporate the recovery cost in the virgin price of materials. There's a big distance between the virgin sale, if I can use that term, versus the end use. It in fact goes through so many hands in the building industry that it's a very long chain. We're not too sure that that particular approach does in fact encourage the most efficient use, because there are contractors involved in actual building and supply, there's the maintenance and use of the building while it's being used for what it was designed for - ostensibly for what it's designed for. A lot of buildings, particularly in commercial, undergo different design uses through their life.

So what we want to see is some devotion to perhaps investigating construction techniques that will allow easier disassembly and recovery of materials, that would actually make it more efficient to actually encourage that action, rather than put all the responsibility back into the manufacturers, which would have to increase costs, which would lead to less affordable buildings.

MR WEICKHARDT: Well, I sort of understand that, but that's the point I was trying to drive at before: if you're interested in recovery and you don't want landfill levies to be the driver, surely you've got to - your members, even though they are interested in selling virgin materials, they've got to take some responsibility and leadership to say to the industry, "This is how our products might be recovered, reused, recycled or not sent to landfill."

MR McDONALD: And it happens now. I mean, there's very strong relationships. There's been investigations of actual - as I mentioned - recovery activities. But when you look at the breadth of material recoveries, if you take a building in the central business district here versus a renovation out the back of the Mallee, it's still the same material. What do you do in terms of your cost recovery analysis? We were discussing that earlier with Product Stewardship Australia: is it a single cost. There are all sorts of policy issues there that BPIC is not the one that should drive the answer to, in my view. They're very much social policy issues in some cases.

MR WEICKHARDT: Okay. All right, thank you very much indeed, Tony. Appreciate your input and your submission.

MR McDONALD: Thank you.

MR WEICKHARDT: We'll adjourn now, until 3 o'clock.

(Luncheon adjournment)

MR WEICKHARDT: Now, let's get the show under way. Our next participant is the Housing Industry Association. If you could each introduce yourself and your positions please, for the transcript.

MR WOLFE: My name is Graham Wolfe, HIA's Victorian executive director.

MR EVANS: My name is Glen Evans. I'm the executive director building services with HIA.

MS NIELD: My name is Fiona Nield and I'm the executive director of industry policies at HIA.

MR WEICKHARDT: Okay, thank you. Now, we've received your submission but if you want to make some general introductory comments, that's fine.

MR WOLFE: Thank you. I do propose to make a formal presentation, principally on some key issues that have been addressed in our written submission to the inquiry, and then happy to take questions and answer them as best we can. The Housing Industry Association, HIA, is a national association of more than 42,000 businesses from the residential building, renovation and development industry. Our members include builders, building contractors both residential and commercial, consultants, developers, manufacturers and suppliers of product and services.

HIA members build over 90 per cent of the Australian housing stock, that housing stock generating significant employment opportunities and making an extremely strong contribution to the Australian economic growth. There are three principal sectors in the residential construction industry: that is multi-residential, single detached housing and renovations. The housing sector is dominated by small to medium sized companies. Up to 85 per cent of all businesses in the industry employ five staff or less.

Waste management in the housing industry or the housing sector can be costly, time consuming and often impractical. In fact significant barriers exist for management and recycling of waste materials from housing construction. There are six key points that I wanted to highlight in this initial presentation. First of all, the first is that this inquiry provides a significant opportunity to evaluate the extent of disaggregated data currently available on waste generation created from construction in the residential industry.

Up to date, relevant and accurate data on waste generation that specifically identifies quantum and type of waste from specific work sites within this category, is of itself a necessary outcome. Design material procurement and construction work in the housing industry is predominantly carried out by multiple trade contractors, the

majority of which are small businesses, as I said previously.

MR WEICKHARDT: Could I just clarify that. You said an outcome from this inquiry should be this disaggregated data?

MR WOLFE: No, an outcome from this inquiry would be to research the extent of the capacity to identifying further avenues for identifying data in a disaggregated format, so that we can understand where the waste is being generated from, from particular sectors of the industry and from particular sites within sectors, so that we don't have a situation where the information we have available to us now is holistic across the entire industry, aggregated across entire industry if you like.

MR WEICKHARDT: We'll maybe come back to that, but my I guess quick reaction would be why can't the industry go through and produce that data itself if there's value in the data. I mean, data is not costless. So if there's a return from collecting that data, surely the industry would get that return and therefore why doesn't the industry invest in collecting the data in the first place.

MR WOLFE: Happy to talk about what's happening in the industry already.

MR WEICKHARDT: Thank you.

MR WOLFE: Housing construction has natural and artificial constraints. Small parcels of land particularly in inner and middle ring infill sites, limit access and storage areas, local government planning requirements can further frustrate site constraints by dictating unusual site setbacks, design criteria and height limits.

The fourth point I wanted to make is that there are some economies of scale available to volume builders. These economies of scale and highly refined design processes and sophisticated estimating software favour volume builders in their efforts to address the waste management objectives. However, variations to standard house designs arising from site conditions, from building regulations and from local planning conditions can reduce the benefits from these economies that are available to volume builders. There is a lack of available recycling services and transfer stations for housing sites which generate small volumes of waste on a per-site basis, and this is particularly the case in regional areas.

Finally, the promotion of voluntary and self-regulation or regulatory methods would generally produce a higher level of success beyond which is achieved with a minimum regulatory standard. Industry is leading the way with some very innovative solutions already on the ground. Recycling services and practices are emerging. Rather than considering any regulatory approaches, a better way forward for governments would be to support these industry approaches and concurrently

initiate a coordinator program to collect relevant data. Thank you.

MR WEICKHARDT: Thank you for your submission. You made the point in here that:

> Significant barriers still exist for recycling materials. Individual companies are frustrated. They feel they cannot make a difference due to lack of economies of scale for disposal -

and I guess therefore recycling of material.

We've had a number of people put to us that there are some good stories in construction and demolition, and if you look at the overall masses of material that's being recovered and recycled, that looks quite impressive. But we have had people point out that in the smaller end of the market, which is probably where a lot of your members are, there are a lot of problems. You refer to some of them; skips and not a lot of space, and the fact that products get co-mingled or not sorted on site. Apart from the fact that you're clearly frustrated by the council regulations in this area, what is it that proactively you can suggest would suit your members and yet give rise to a better outcome in terms of the material being sorted actually on site, because everyone seems to agree that disaggregation and clean separation is critical to getting value out of recycled materials.

MR WOLFE: There's about between 150 and 170 thousand new homes built in Australia every year. Looking at Victoria particularly as an example, about 40-odd thousand new homes being built in the current financial year, of which about 32,000 of those will be single detached houses. The actual volume of housing that's being built out there is of itself a problem. Of the 32,000-odd new homes being built in Victoria, 30 per cent will be built in regional Victoria.

Having services available to those 32,000 new homes, particularly 30 per cent in regional Victoria, to collect the waste - that is the bins to put on site and the services to pick it up and take it to a recycling plant, recycling service or to landfill, whichever the case may be, is of itself a difficult task. So the actual size of the industry, the number of construction jobs being constructed across Australia means that the services of recyclers needs to be extremely well networked. It doesn't exist at the moment. So that in itself is a barrier.

As I said, there's renovation work and new home work. In a lot of inner city suburbs, access and storage area is a problem because of site constraints. Once upon a time, council would allow skips to be put on footpaths and verges. Now it's not always taken that you can do that. There are certain approval conditions that you have to meet. There are constraints in terms of how long they can be left on the

verge or on the footpath or in the street. So they themselves are barriers and constraints.

There is a perception by the industry also that - and I know we have lockable type skips. They're becoming more commonly practised, but in the past, people had skips on site and they would have some foreign material and matter deposited in there. Also with a non-covered or non-lockable skip, you will have the potential for some material to go in there like lunch wrappers from the trade contractors, and it would blow out during the course of the evening between when the people knocked off and when they went back to work, which meant that there were some littering consequences associated with council coming out and serving fines on the people. So that was a perceived problem. It's improving because a lot of the skips now have got lockable lids.

So there's a couple of examples of barriers out there that aren't necessarily facilitating builders in running towards waste management facilities that are available through waste management providers.

MR WEICKHARDT: One of the people who submitted to us in Queensland is in the timber recovery area, and they already do a lot of recovery from old buildings, but they said they're constantly frustrated by the fact that buildings get demolished before they've had the chance to identify what's in them, and often once it's been demolished, the timber has been damaged or it's much less recoverable and much less valuable. They were urging that they got much better notice of when buildings were going to be demolished so they could go and pre-inspect and remove, under proper conditions, the timber.

But they and others noted that this is problematic because the industry is often in a rush. The builder is keen to start work, and the bulldozer rolls in and the building is gone. In my observations in our neighbourhood, you can drive past the house and it's intact one morning, and you come home in the evening and there's a clean building site. What are your members' views, if they have any, on how better value could be obtained from that demolition phase?

MR WOLFE: I think that's certainly worthy of some consideration. There are some immediate complications that come to mind. For example, there are extremely strict occupational health and safety laws that operate across Australia. For a house to be demolished, first of all it has to be vacated. It may or may not need a fence around it before any work happens. Then there's access into a site that has a fence and lockable gates. There is the issue of access within the house and how that operator may go about collecting some of the materials, and quite often the sort of timber that you're talking about will be structural timber.

To go in and pull down some of the structural timbers by hand where you're not going to damage it as much as I presume you're referring to by machine means that there needs to be a fairly sophisticated demolition plan for the house, and it probably wouldn't be unreasonable in that instance where it's been demolished by hand rather than by machine for somebody to be asking a few more difficult questions about how you're going to about doing that.

So you've got occupational health and safety requirements. You have access requirements and then you also have requirements relating to how you're going to go about doing it. Then you've got the time constraints. It may take - instead of a day or two, it may take three or four weeks, and it depends again on the nature of the materials within the house. You have added to that that some houses will have some better advantage in terms of pulling materials out from other houses. The condition of the house, whether or not there's termite, dryrot, and the type of material, type of timbers that are being used, and then I would question the capacity of some of those operators in terms of the number of demolition jobs per year to be able to source through whichever ones they want, and whether or not it becomes a hit and miss.

So from a builder's point of view, yes, time is an issue, but it's not just the builder's view about time. To get to that point in time, there has been quite a considerable amount of time spent in getting the necessary approval to start the work; that is, the loan approvals, the building approvals, any planning approvals and so on. To delay at that point in time for a further three to four weeks is going to have a significant impost on the holding charges for the consumer, and the consumer then starts to question the contract and there are other flow-on effects.

They're just a few sort of off-the-cuff observations, the least of which I think - not the least of which is the occupational health and safety significance, because once the builder has control of the site, that builder has the responsibility for ensuring there's occupational health and safety practices on site so that there's a safe workplace. Demolition sites by their nature are more difficult to keep safe.

MR WEICKHARDT: I understand those are legitimate points. It seems however a fertile area that some more work could be done.

MR EVANS: Can I just add to that, if you just took a step back 20-odd years or so, often builders actually did demolish and a lot of builders had their own storage yards too, it's probably fair to say. Demolishers come through now, they take out the key features like windows et cetera that generally speaking, as you quite rightly point out, a lot of the mass materials actually don't get recycled. But 20, 30 years ago they did because builders had storage yards and they could see the value in that timber or whatever material it might well be.

But the issue is that you've seen I guess a lessening of the number of storage yards now, mainly because of land costs. I've had personal experience in a building firm which had a significant storage yard in Hawthorn and ultimately had to sell it off as a result of the fact that the rates and so forth were so significant that they couldn't ignore that. So I just thought it's probably worthwhile highlighting the fact, as I said, that that was in part a pretty standard approach to reusing materials, recycling materials a number of years ago.

MR WEICKHARDT: You say in your submission:

> Both large and small builders face problems associated with the disposal of packaging material from whitegoods, much of which is non-recyclable.

I'm sure the whitegoods manufacturers, if they were here, would say, "We'd be happy to take all the packaging off, but then the builders will whinge that the whitegoods are damaged and scratched and bent by the time they get there." Do you have a practical suggestion as to how you can actually have these products get in good condition to the householder and yet minimise the problem of packaging that you refer to?

MR WOLFE: It's probably worthwhile breaking down suppliers into two groups. One is the supplier who has a trade contractor-type arrangement for transporting goods to site, and the other one is where they are employed and they're part of the operation. In either case, there is a very real risk that materials will be damaged if they're not properly packaged, that is in the transportation. That's getting it out of the factory, putting it on the trucks. Sometimes they're kept in storage for a period of time. That storage facility is normally a rack facility. So you've got forklift operations or other mechanised systems. So that's the storage. Then it comes onto the truck and then it goes out to site. So there are a number of opportunities in which a product can be damaged between the manufacturing plant and when it's put to site.

How do you deliver something to a site so that it's in pristine condition, which is the responsibility of the supplier and the builder has a reasonable expectation, as does the consumer, that what will be delivered to site will be in pristine condition. It's in the builder's interests and in the supplier's interests that it is done so, and for reasons of time, the consumer's interest also.

I don't know that there's a way in which you can wrap something up so that it doesn't get damaged or introduce a process which by necessity involves mechanised machinery and transportation out on the open road where you can get something to site unpackaged without damaging. So the presumption therefore is that it will be packaged. What you package it with is going to be a matter of cost, product

availability and what actually works. The industry has been around for a little while, and what we have at the moment in the main are cardboard boxing with polystyrene inserts. That means that in the main, the products are delivered in pristine order to the site, but those packaging materials when they are taken out before the product is installed does occupy some space.

So I don't know that there's any way to answer that question that you can actually get something to site undamaged without it being protected by some packaging material.

MR EVANS: I'm not sure we need to because it could just be an issue of stewardship for that particular company, too, that they deliver it out on site in a particular form, that they could actually remove the packaging and take it back and recycle it and use it again.

MR WEICKHARDT: I see that's a convenient handpass, but I don't know how practical that is either in some circumstances because the builder I suspect quite often has got the particular appliance sort of sitting there waiting to go into a spot, and it's been delivered. They're not ready to install it. So the last thing they want is they've got to strip all the packaging off while there are still builders walking around there with scaffolding poles and the risk of it being damaged. You typically have those things installed right at the end, don't you?

MR EVANS: Yes, you do.

MR WOLFE: It's interesting. If you as a consumer walked into a retail outlet and by a replacement washing machine, even if you buy a toaster or you buy a sound system or you buy any material - I bought a small set of speakers, and the amount of packaging that came with that - well, I've still got the box in my office at work with the polystyrene inserts on the odd chance that I might have to repackage it to send it back to the manufacturer. But everything you buy where there is a statute warranty involved - and that is everything you buy virtually - will be packaged properly so that the manufacturer and/or the retailer can be reasonably satisfied that they have delivered to you a product in good working order, fit for purpose, and it will get home fit for purpose.

If you buy something off the shelf that's been brought out of its packaging, if the packaging has been unsealed, then people have an expectation they're going to buy cheaper, but there also is a perception that perhaps the product inside isn't pristine out of the workshop. So we are all buying packaging, we are all buying polystyrene, all buying the product. How we deal with it in our own household is a dilemma in itself. That's the reality of procurement of material or products to go into kitchens and bathrooms and laundries.

MR WEICKHARDT: In terms of your recommendations, you provided a number of them. They're a long list of "government should". What are the list of things the industry should or the HIA should?

MR WOLFE: To start off with I think the industry reacts to the environment that it's working in. So the industry has a number of agencies that are pulling it from pillar to post, not only building inspectors and building approvals and planning requirements and council requirements and environmental requirements. They've got consumer requirements, contractual requirements, occupational health and safety requirements and a lot of other regulations that impose conditions on how it operates.

So within that environment, trying to work out the best way to manoeuvre through that and provide a housing product to a consumer at a very, very realistic price in a time frame that is competitive on world standards, the industry has had to evolve. The industry has evolved into the position that it is because in the main of the regulations that confront us, and those regulations are very much at times conflicting. Because of conflicting regulations, because of conflicting priorities, sometimes a builder has to err towards one regulation than another.

What I'm trying to say is that the government, if it's looking towards a regulatory environment for waste management on construction sites, it needs to be cognisant of the fact that it's going to potentially compete against other requirements, and as I said, waste management sometimes is supported by councils, but other council requirements generally oppose it. So what can the government do? Well, one thing that we're hopeful that the government won't do is to step in and arbitrarily interfere through regulation.

One area that the industry can deal with - and the industry has looked at this on a number of occasions - has looked at the packaging requirements, has looked at the recycling requirements - is to somehow work with product recyclers and get their services far more widespread. That in itself would be a fantastic outcome. Then it would be a matter of cost and convenience. So access, cost and convenience are the first type of issues when you look at it. But that again presumes that the data that we have available at the moment is accurate and is - you know, it presents that the domestic construction industry is a generator of substantial waste.

MR WEICKHARDT: Yes. Well, you've seen the terms of reference and you understand the government has got a concern about this whole area, and part of the concern is that, I guess at a sustainability level, that we're using and extracting resources at a rate above that that's sustainable in the long run. I think there's evidence from other industries that the government sort of would prefer probably not to intervene, doesn't know what the right answers are on many occasions, but

eventually there are examples where they get frustrated and they just do something. Plastic bags would be one good example, where it wouldn't appear that all the options and alternatives and the consequences were necessarily all looked at, but I guess you get enough outcry from the community and saying, "We're frustrated about this," and governments feel they need to do something.

I guess my point would be in the building industry there probably are a large number of people who either walk past building sites and see skips and see stuff going into landfill - and it probably doesn't in many cases have much of an adverse consequence on the landfill in terms of leaching or anything like that, it's probably fair inert - but in terms of like waste, there are probably a lot of people who say, "It doesn't look all that good, brand new sort of products coming in and not very used products go out."

So I guess my little penny's worth would be the industry association could probably do a favour to its members to avoid government getting even more heavy-handed by saying, "Well, these are some of the things that we can do that encourage that." I see you've got some guides here. That looks a good, positive, proactive step. Are these actually having very much influence and being used by your members?

MR WOLFE: The best way to answer that is to look at the number of builders who have come onto our GreenSmart, and that has increased very steadily over the last few years. When we consider that there's well over 200 members of our GreenSmart program that are builders from all shapes and sizes and volumes of building activity, they represent a significant sector of the industry. They are coming onto the GreenSmart program in terms of waste, in terms of materials, in terms of energy efficiency, water recycling and conservation and a whole lot of areas.

What it does is it certainly makes them cognisant of the issues, the environmental issues, that perhaps they weren't so aware of in the past. They are also using, as I mentioned before, far more sophisticated software programs, in terms of the design and in terms of estimating, which means that they generate, by nature and virtue of the designs, far less waste in the first instance - of course unless they're frustrated by some changes that are necessary because of planning laws. But yes, the answer is that they are coming on board in terms of the design, in terms of the site management and in terms of the waste issue.

MR WEICKHARDT: Somebody pointed out to us earlier in this inquiry - I've forgotten whom - that the concrete suppliers now - if you over-ordered concrete, typically the concrete supplier would just tip the excess out at the building site and then presumably a bobcat would pick that up at some stage and it would go into a skip and go. Somebody said that the concrete companies are now charging for the

sort of excess that's being delivered and its removal. Are there any other areas where suppliers to the industry are taking actions consistent with the sort of whole of life or product stewardship approach, which are having influence on your members?

MR WOLFE: Not to the extent that concrete providers or suppliers are. Concrete is a fairly unique product because it goes into the back of a drum, it turns around, it's quite fluid and if it stays there, eventually the drum stops and it sets. So before the drum stops and it sets, the concrete company needs to get rid of the concrete if it's an over-order. So they either get rid of it on site - which they can still do. It might not be used for the intended purpose but it might be put into again a hump, where the bobcat comes along at a later stage and takes it away.

But where a builder - or an owner, owner-builder for that matter - has ordered too much concrete and wants it to go back to the site because there is nowhere to put it, they will pay a premium for the wastage to go back to site, because ultimately the concrete company has to deal with it. It goes back to site. The concrete company at least has the opportunity to recycle that product through its own mechanisms. If it stays on site, yes, it's either going to go to landfill or it might be buried.

MR WEICKHARDT: The area of sort of collecting material and separating material, recovering material from building sites - you've noted lockable skips. Apart from that, are there any initiatives that any of the people that provide skips or that builders themselves are taking to have separated skips; you know, a green one for timber and a red one for bricks and something else for pipe or metal? Are there attempts to sort of segregate material as it comes out of sites?

MS NIELD: There are certain builders, volume builders mostly, who will attempt to use separate waste collection facilities. There are indeed companies who collect either separate or aggregated material for recycling. So there is some attempt to actually separate that on site. As Graham mentioned earlier, a number of the builders who are building within infill sites - which is encouraged these days - find that it is very difficult to store material on site, so they find themselves making multiple trips to either other locations or to tip facilities to take away the material quickly. But there are some builders who are doing sorting on site and separating the materials in the rubbish bins, definitely.

MR WEICKHARDT: Okay.

MR WOLFE: The waste recyclers will tell you that sometimes it's just as easy to pick it all up in one go, and their recycling or their selection facilities can pretty much deal with the variations in the materials pretty quickly at their site. So the question about having separate systems of storage on site has got a question mark next to it. The industry is not real sure whether or not separating it on site is actually

going to achieve anything, particularly if there's potential for the separation bins to be polluted by somebody - trade contractor or whatever - who puts the wrong thing in.

MR WEICKHARDT: That certainly would be completely counterproductive, but I think most of the recyclers in the building industry we've spoken to are particularly concerned about contamination and particularly site contamination of material with asbestos and say for occupational safety and health grounds that's a disaster. You know, there's one company in Sydney who said they're close to just abandoning working in the area because they haven't been able to solve the problem; that they're exposing their workers to try and inspect materials that comes off trucks to see whether or not there's any asbestos in it, and then they get final ground-up material analysed and it's got more than .05 per cent asbestos in it and then the EPA condemn that.

MS NIELD: Yes.

MR WOLFE: I think it's important again to keep the separate parts of industry within their pigeonhole, so to speak. You're probably referring to renovation work, where they're pulling down some ceilings or eaves or whatever.

MR WEICKHARDT: I was just referring to a person that takes mixed waste, basically. Obviously your point - that, you know, some people don't mind it mixed. They were saying, "Well, it's a bit of a disaster if you get the wrong material actually mixed in," and it's very dangerous for them to try to actually get people to watch it as all tipped out the back of a truck.

MR WOLFE: In the new housing sector again, 160,000-odd homes built every year, that level of safety in polluted-type materials wouldn't be the same. You may have some timber products that have got some compounds in it, but apart from that, they wouldn't present the same risk as asbestos would in a demolition or renovation job.

MR WEICKHARDT: Thank you very much indeed for your submission. We appreciate it, and thanks for the material you provided.

MR WOLFE: I mentioned to you over the 200 builders on our GreenSmart program, that's in Victoria alone.

MR WEICKHARDT: Thank you.

MR WEICKHARDT: - - - make some sort of general comments, that's fine. Then we'll take a few questions and then we'll see where we go. I should say you are speaking on speaker phone, and the transcript is made of this which is available on the public record. So just be aware of anything you say is being taken down.

DR HOFSTEDE: Okay. That's no problem. I may need to give a bit of background in terms of where I'm coming from in terms of my expertise in this area.

MR WEICKHARDT: Perhaps you can just introduce yourself and what your role is and who you're representing first of all.

DR HOFSTEDE: Okay. My name is Dr Harrie Hofstede. I've got a background in - a degree in agriculture from the Netherlands, and in 85, I was enrolled in doing a PhD at Murdoch University which was entirely dedicated to the composting of municipal waste and the issue of heavy metals in compost produced from that type of waste which was the first time in Australia that anyone sort of looked into that area. I suppose in early 90s I completed that, and came up with some remediate solutions for heavy metal aspects. I did a lot of work on waste auditing on kerbsides and probably done over 50 audits for local government - waste information systems that evolved into, just to get a good insight into what people throw away and also to provide a monitoring tool for the success or failure of various recycling initiatives in kerbside separation systems, and the recovery rates of them and measuring and doing the audits to allow you to monitor the success of certain systems.

I also did a whole lot of work on economic instruments in changing behaviour of people by looking at user-pay systems either by fully embraced pavement systems as well as weight-based waste generation payment systems, much like you'd pay for your electricity and your water where you have sort of a base rate that comes out through your rates and then there's a user-pay rate on top of that per kilolitre or per kilowatt, to provide people with an incentive to reduce the volume of waste or to provide people with an incentive to divert waste from the recycling bin which would either possibly be free or cheaper in terms of cost than in a waste bin which would be charged higher to provide the incentive.

So I did quite a bit of research in that area, and following that, I also did quite a lot of research on looking at more technical work on composting. We have biosolids which I did a three-year project on with the Water Corporation here and issues with product quality. I was probably initiated to start lobbying for establishment of a national compost standard which led to information of Standards Australia Committee in early 90s, and in 95 I officially started work and produced the national standard of compost AS4454 which I thought was critical in producing sort of a baseline product quality standard to protect environment and public health and the consumers who use all the products to provide some sort of base, guarantee of

quality for long-term users.

Because at that time there were some products on the market that were basically quite deceptive and so bad that they could possibly damage the term "compost" and spoil it for everybody else that was going to make the higher quality compost products. The term "compost" is not a protected term in Australia, and you could sell a bag of sand and put "compost" on it, and if somebody buys it, that's entirely I suppose all right. So these were some of the issues underlying the Australian standard thing that we developed, and that probably gives you a real background about myself.

I've lectured in waste management and pollution control at Murdoch University till 2000 where I set up the centre for organic waste management before I left, and since then I've run my own firm in waste management pollution control R and D, and commercialisation of IP in the area, and I've just come back from Bangladesh where I did some work for the World Bank on the poultry waste consultancy there, and greenhouse gas emission issues et cetera.

MR WEICKHARDT: That's extremely interesting and very relevant background, Harrie. Can you turn from that to what it is that you recommend we in the commission ought to be focused on or looking at, where the fertile areas are for improvements?

DR HOFSTEDE: Yes. I suppose it's far and wide. I think generally there needs to be a lot more consolidated effort in waste information, and a definition of "waste" in terms of - there's a huge divergence of terminology and labelling of waste. For example, grass clippings generated a high school are considered commercial waste, whereas from a household, it would be considered household waste. There's a whole range of implications attached to that in terms of disposal and cost of disposal. So there really should be a new approach to waste classification based on resource value and not where it's generated, but very clearly on its resource potential or the nature of the waste material.

Grass clippings, or food generated in the kitchen of a canteen of an industrial complex is likely to be classified as industrial waste. So you can see the nature of that, and a lot of industrial waste are probably much more in earth than a lot of the domestic waste, yet there's a huge stigma attached to the term "industrial waste", whilst most of it very much has a very strong resource value.

I've worked with actually quite a lot of big corporations including Alcoa, BP and some of the fertiliser companies who really look at the resource potential of a lot of their by-products as I refer to them, and these areas probably pale into insignificance the domestic waste generation which is a much more complex and

highly mixed waste, but in terms of volume and industrial and commercial waste and to some extent agricultural waste are probably well in excess of domestic waste.

Domestic waste is much highly rated in terms of people's minds and political focus because it's very close to the boundary in terms of what people are confronted with in terms of waste. But in terms of actual quantities, it's relatively minor and of relatively low resource value in terms of efficiency and what you can recover from it and the benefits that come out of that, and these efficiencies are much greater from industries and commercial waste product, often because they are much larger quantities of the same material. So there's no separation and there's much easier quality control of things involved.

There's also still very much - this is going on to another area now. If the issues of subsidisation and rebates et cetera, there is - some of the questions that need to be asked is whether reprocessing waste is a primary industry activity and whether it could be treated as a virgin material for a new process. I think that's quite an important issue and there's a lot of implications for the industry in terms of potential tax rebate and other benefit of being a primary industry, and a lot of the sort of secondary by-processing or value-adding industry I think, and I think there's some very strong arguments for being classified as a primary industry, not the least of all because of the incentives that it's highly desirable to develop that industry and then help it along.

At the sort of micro level, there's quite a lot of issues in terms of quality of product. At the moment the general drive in the industry of waste processing is just that, waste processing, and getting a relatively high gate fee for basically accepting the waste as an alternative to landfill, and there's a significant lack in being market-focused in terms of producing product for which there is a market.

There is really little point in reprocessing a lot of waste, and there are already three or four large-scale examples in Australia where ratepayers pay up to $200 a tonne to have waste taken to this municipal waste processing or secondary treatment plant, and after a lot of energy and equipment used, still 40 per cent of this waste that comes out of this is still going to landfill because it's either inadequate quality for recyclable or it's cross-contamination with organic material that can't be separated. All the organic matter tends to accumulate in tins for example which is hard to take it out. So you can't recycle the organic matter, neither the tin. So it just goes out to landfill. My argument has always been there's a much cheaper ways of landfilling waste than putting it through a secondary waste treatment plant.

So these are big issues. I think there needs to be a much greater emphasis on community participation, and this is partly I personally believe the fairly dominant role of the engineering profession in the waste management industry at that level,

and that is probably inadequate community consultation and participation. The community is extremely important because they are not only the waste generator and can be engaged to either reduce by changing buying patterns as well as educating them on how to dispose of the waste, whether they would separate it in different bins.

So they play a really critical role, and on the other side they also represent the market for buying the recycled products. If they're not engaged at a high level and one either side, it's one of the reasons why these plants often fail. They don't get the waste presented in the way the plants would be much more efficient in processing it, and they don't really generate products that the market would be interested in buying.

MR WEICKHARDT: Can I just stop you there, Harrie, and perhaps go to your composing experience because it would appear that at the moment, quite a lot of professional waste is being diverted to various facilities, and we're making vast quantities of compost. But it would appear that quite large quantities of compost are sitting in various piles waiting to find a home.

DR HOFSTEDE: Exactly, and again that is a typical example of where the waste is - the focus has been on waste processing, and rather than producing products for which a demand is either there or can be created - for example, there's some large plants here in WA as well that go through this whole process, and never actually have ever sold product. They either give it away or they apply it to their own private land which is causing a problem. It's making these projects relatively unsustainable in probably the shorter term.

But it also poses a risk to other companies who are producing a much higher quality compost because there's really just a single standard. Compost is compost, and if people have tried one and they often claim to be high-quality compost, and claim to be exceeding the standard even though in reality sometimes they don't comply with the standard. These products are sort of spoiling the whole market exercise of a lot of companies who are producing a truly high-quality compost, and this is a structural problem where the current standard is probably overused to some extent and overburdened, and because it's a relatively low standard, it's really a standard that ensures protection of the environment and protection of public health. It doesn't say anything about the performance of the product or how good it is and what you can do with it. So it's a very basic sort of standard.

The problem with standards in that sense is that there's always more money in making dirty compost than clean compost, as long as you comply with the standards. So there's always the cheaper or there's more money in making a dirty compost, and that's basically because either you get more money for the waste if it is contaminated. There are composters that pay for the feedstocks because it's high-quality products, like some of the poultry litter materials, and they produce a very high-quality

compost which is very difficult to compete for those operators with compost that also comply with the standard - they both comply with the standard, and there's no distinguishment in terms of product beyond the fact that they comply with the standard, yet there's a huge difference in performance and quality.

My sort of approach to it is really that the more contaminated, the higher the cost should be to the waste generator to provide it with an incentive to clean up that waste. But also in order for that to flow through, there must also be a very clear distinction in the higher the quality product, the higher the value of the product, and that is officially recognised because otherwise the incentive will always be to make a sort of contaminated compost, because you get higher money for the input of the material, but you don't necessarily get more for the end product.

MR WEICKHARDT: Harrie, if I could just sort of say - we're trying to really understand here, because our terms of reference off the government, what governments ought to do. Those sort of issues surely are pretty common to lots of things.

DR HOFSTEDE: That's right.

MR WEICKHARDT: The local hamburger store can sell hamburgers with no meat in or with lots of meat and we rely on markets and good marketing by companies, and a bit of industry I suppose association work to try and sort some of these things out. What is it that governments ought to be doing in this area of a compost industry that would help?

DR HOFSTEDE: Well, I suppose in the absence of starting having a system of carbon credits - and I've just recently actually really realised what it means in other countries that are doing this kind of work, where the carbon credits are almost the same value as the compost that they generate so there is a huge economic push for these operations, where in Australia the product really should be enormously high value - and it is of enormously high value - but it's not acknowledged.

For example, in Australia the value of the product, of compost as a product - the highest value of it is really in its potential to save water in irrigation practices and in other ways, or in soil health. There's additional sort of - high salinity, and general soil health improvement, as there's almost complete deficiency of carbon in soils - extremely undervalued commodity. I think that's where the government should find some way to place a value on that and providing farmers and land users with an incentive perhaps to improve the soils, and with the general resource efficiencies that flow from that in terms of water but also energy choice and crop yields et cetera and improved land management practices.

MR WEICKHARDT: But surely farmers have got an incentive to do all those things now.

DR HOFSTEDE: Well, actually they don't. They are not sufficient. Partly this is because of lack of education or lack of information of the benefits of the product, which I think the government could assist in actually promoting through maybe the Ministry of Agriculture putting a program to farming in general.

MR WEICKHARDT: But why can't the compost industry do that itself?

DR HOFSTEDE: Well, they would have to play a role in it of course. But as an emerging industry, where the industry is really processing community waste that's generated by the community in general - and waste generated by the community is clearly a government responsibility. Because there's no money in it in its own right, it is a service provided to the community, like a cleaning service you have in your office type of thing. There's no money in it unless you pay the cleaner to do it. The cleaner will not make money out of it by selling the waste that they collect in the office.

MR WEICKHARDT: But in this case you're telling me that compost has got lots of valuable properties that farmers should be aspiring to.

DR HOFSTEDE: Yes.

MR WEICKHARDT: I would have thought that some good marketing and demonstration by the industry of those benefits would see farmers want to use it.

DR HOFSTEDE: Demonstrations are absolutely critical, and industry of course has to play an important role in that. One of the problems I think is it's an emerging industry. The structure of the industry is typical of an emerging industry, where it's still very unconsolidated, it's very dispersed. There's a relatively small number of operators who often see each other more as competitors, rather than as a consolidated industry that needs to work together and expand the industry as a whole. So there's a lot of those general problems that you have in an emerging sort of new industry situation.

I think there's confusion in terms of I suppose what role in fact the government plays in this whole industry. But I'm certainly not somebody who advocates, you know, special subsidies to crank up an industry in any way. I think certainly not. But I think it's very important that we need a framework from a government perspective, a broad framework that clarifies potential - you know, either tax incentives, where there's a genuine reason for it. It would be primary industry base - claimed by the primary industry - or where does the industry provide a clear essential

service to the community, where they would otherwise pay 50 to a hundred dollars a tonne to take something to landfill. I think it's reasonable for - if industry can do something more efficient with that same waste, that it should not be the burden on the industry to do that without getting paid for doing the same service if they can get a better result generally for the environment and economy activity et cetera.

MR WEICKHARDT: Okay.

DR HOFSTEDE: That I think is a very valid situation, where they do receive some income from providing that service to the community.

MR WEICKHARDT: Okay. Can I change gears, Harrie, because we're just about out of time.

DR HOFSTEDE: Okay.

MR WEICKHARDT: You mentioned that you'd done some research on economic instruments around user-pay, associated with sort of volume and weight systems.

DR HOFSTEDE: Yes.

MR WEICKHARDT: Plus pay as you throw type systems.

DR HOFSTEDE: Yes.

MR WEICKHARDT: Given the sort of costs of I guess accepting waste to either landfill or alternative waste treatment systems, is the price signal to a householder for a "pay as you throw" type system going to be sufficient to actually make any difference and motivate a person to think twice before they put something into a general municipal waste bin or a recycling bin, do you think?

DR HOFSTEDE: It's often not the actual cost: it's the RD that tends to be the primary motivator for people to take a certain action. I mean, you turn the lights off because you know it costs money to leave it on. If you actually worked out what an extra half an hour of light cost, it would be a few cents. Nobody would worry about it in any other situation. So it's not necessarily the actual amount of saving but it is the fact that it's wasteful, or you're paying more, that is the primary motivation for people to divert waste.

There are a number of - I suppose at the moment current situation actually promotes waste generation. Basically you get a fixed volume disposal capacity per week, each household, and whether it's sort of an elderly lady living on her own that produces one little bag of waste per week, versus perhaps an extended family of

10 that lives next door and that would have filled up the bin after the second day and after that they start cramming it in. Each household pays exactly the same for that service. There's no correlation to quantities of waste generated.

MR WEICKHARDT: Yes, I understand that.

DR HOFSTEDE: The general incentive would be for any fixed fee that people try to maximise the use of that amenity. It's no different than going to sort of an "all you can eat" Pizza Hut, where you pay 6.95 and eat all you can. People will maximise that and the incentive is to maximise that, the use of that sort of deal. The amount of waste has actually significantly increased since we've started recycling, because of the incredible increasing volume of waste - volume capacity that has increased. Initially we had sort of a small I think about 60-litre bin or so, steel one, and then it became a 240-litre one which immediately led to an increase of 20 to 30 per cent of waste because everybody abandoned the garden contractor or the garden bag situation and saved that money and put it all in the waste bins.

MR WEICKHARDT: Well, they probably also stopped using their incinerators too and - - -

DR HOFSTEDE: There's all that. But the main increase in composition of the waste was due to increased garden waste in the waste stream when the 240-litre bins came in. With recycling, often they got an additional bin per fortnightly, so that's nearly a whole cubic metre a week - two times 240 litres - or if it's fortnightly, an extra 120 litres a week. So that has promoted the increase in waste coming out of the door from each household. That was then sort of countered with an attempt to get everyone to home-compost it, and that was probably a feeble attempt and never really worked in the way it was implemented.

It can work, the systems, with either user-pays system, but the volume-based system is really about trying to restrict the waste volume of the undesirable bin, the waste bin, and increasing the size of the desirable bin which is the recyclables bin which just - although from our situation, my council, we have 240-litre bins for garbage which is weekly and a 120-litre bin for recyclables which is fortnightly. So I've got 60 litres a week for recyclables and 240 litres per week for garbage and I have to really sort of cram it into the recyclables.

MR WEICKHARDT: Yes. It sounds a bit crazy.

DR HOFSTEDE: All I have to do is really swap it around, and it would be a lot easier and better.

MR WEICKHARDT: Okay. Harrie, we're out of time. Thank you very much

indeed for your contribution and your submission. We appreciate it very greatly.

DR HOFSTEDE: I just want to make one last comment, and it's actually quite important. In terms of the Biomart incinerators, I did make a written comment in that, but at the moment, the composters I suppose do not have this sort of additional incentive which may return a line of credit or something in that type of thing, whereas by earning the organic material which generally for the Australian economy and environment is an extremely low return for the use of that Biomart, it would produce much, much greater returns for Australia in general if it was used in soil improvement.

It is at the moment - there's much greater incentive provided by the government to burn organic matter than to process organic matter and use it to improve land, and I think that is quite a serious situation because once the incinerators are all built - and there's a 350,000-tonne incinerator plant in Perth - it will operate for at least 20 years, and in that period of time, none of that material will actually be available for the compost industry, and the compost industry will probably die very quickly.

MR WEICKHARDT: Where is a permit being given for an incinerator in Perth to burn organic waste?

DR HOFSTEDE: It's in an industrial area called Neerabup in the City of Wanneroo, and the initial drive for the project, incentive for the project, was they're going to be clearing 24,000 hectares of pine trees in a strip north of Perth. The plant was I suppose touted as a renewable energy plant, and was going to process all the - I suppose burn all the tree waste from the 24,000 hectares of pine trees they were going to be clearing, over the next 20 years. But since then, they've - and they can claim renewable energy credit for that which is an enormous financial incentive and basically makes the project viable, otherwise it wouldn't.

But they've since been able to offer $10 a tonne for green waste. For any green waste that's generated in Perth at the moment, they will take for $10 a tonne. Composters cannot pay $10 a tonne for green waste, produce a product and then sell it. They will at best have to get it delivered on site free or get some money to actually take it.

MR WEICKHARDT: So is that incinerator actually operating now?

DR HOFSTEDE: No, that's not operating as yet. It is in the very advanced proposal stage, and they have just about finalised the financing of the project, and there are some substantial institutional investors involved in this project.

MR WEICKHARDT: Because we saw the Western Australian government,

including the EPA or representatives from the EPA, on Thursday of last week, and they said that in their view, getting society in WA to agree to any sort of waste to energy conversion by incineration was virtually impossible, and that almost every project that had been ever put up had been knocked on the head.

DR HOFSTEDE: There recently was one that I in fact played a very strong role in opposing, the incineration of a hundred thousand tonne of poultry litter which was promoted, and which still is not off the agenda. They have all the environmental approvals.

MR WEICKHARDT: I see.

DR HOFSTEDE: They're provided by (indistinct) environment and all government officials have provided the approval for this poultry litter incinerator which would be a complete disaster because at the moment it's used in horticulture, and we generate export vegetables, and there's 4000 tonne of nitrogen alone in a hundred thousand tonnes which would all turn into NOx's which are 330-tonne equivalent of CO2 in terms of greenhouse gas emission.

MR WEICKHARDT: Harrie, we must go. Thank you very much indeed for those points. Interesting and pretty relevant. Thank you.

DR HOFSTEDE: Okay. Thank you very much for the opportunity.

MR WEICKHARDT: Okay. Thank you.

MR WEICKHARDT: Have we got our next participant? Our next participant is from the Packaging Council of Australia, and perhaps if you could both introduce yourselves in terms of your names and titles and responsibilities.

MR WILLIAMS: Gavin Williams, chief executive officer of the Packaging Council of Australia.

MS SALEM: Jennifer Salem, southern cross awards manager of the Packaging Council of Australia.

MR WEICKHARDT: Thank you. We've seen your submission, and thank you for it. It's an extremely interesting submission and raises a number of important issues. But you may want to make some general introductory comments before we start talking about questions.

MR WILLIAMS: I'd like to touch, if I can, on about four or five of what I see as the major issues coming out, and I'll do it very briefly and I've got the clock in mind over there. So I'll try and keep it to 10 minutes. Firstly I think there is material in the submission about the Packaging Council of Australia. We represent about a hundred companies right throughout the packaging supply chain; raw material suppliers, packaging manufacturers, brand owners and users of packaging and also we have members who are retailers.

Now, the sorts of issued covered by your inquiry have been fundamental to the packaging industry over the last 20 or 30 years. Certainly environmental issues have been at the forefront of our activities and of company activities. But I think it's also true that increasingly over those years consumers have become much, much more demanding about packaging. The old days where they simply wanted something to contain the product have gone. These days they want issues like freshness, convenience, product sizes that fit their particular needs. They want easy opening devices. They also want tamper evident devices. They also want child-resistant closures. And they want all these things at minimal cost.

I guess the other point to make over the last 20 or 30 years has been the change in society and the issues such as globalisation, social and demographic changes and technological innovation have all impacted on the industry. Now, these are a range of complex issues. Companies, in considering them, need to balance a variety of considerations, and of course they're not always pushing in the same direction or necessarily in the direction of less packaging.

Let me give you perhaps one example. One of the issues at the forefront at the moment is the question of tamper evidence: packaging that consumers can be reasonably expected that if the product has been tampered with that they can detect

it. Now, in some cases, some recent examples of tamper evidence have led in fact to increased packaging to combat this role.

I think the other important point is to say that by and large packaging manufacturers are intent on doing and producing packaging with the least amount of materials. At the same time, demographic and social changes - smaller households, working families and that sort of thing - have led to an increase in the amount of packaging per unit of food.

So the key point here is that I think there is a notion that companies are hell bent on pushing excessive packaging onto consumers. That I think is wrong, and it's wrong for the very, very simple reason that excessive packaging leads to excessive prices and in this competitive environment no company would willingly do that. So one of the ways that companies prosper is by producing packaging with the least amount of material and by producing packaging formats which take up less space in factories, which take up less space on the truck and so on, and on the supermarket shelf.

The second issue we cover a lot in our submission is the question of targets, target setting and data. There's nothing new in targets. They have been around for packaging for the past 20 or 30 years. The problem is that we still don't have sufficient reliable national or state based data for measuring where we are on packaging: how much is put onto the market, how much is recycled and how much goes to landfill. So one of the questions there is, how do you set appropriate targets if you don't know where you are? If you cannot measure the problem, how do you fix it? Also, if you can't measure it, how do you enforce targets?

One of the other problems with target measurement in Australia is that waste management, certainly as regards packaging, is the responsibility of nearly 700 local government authorities around Australia. To try and get consistency and uniformity and data out of that system is well nigh impossible. Targets can have an aspirational focus. They can help us concentrate on the issues ahead and be the catalyst for change. If that's all, no harm is done. But in Australia targets have tended to focus on recycling issues, which in terms of the waste hierarchy is not uppermost.

So I think there are issues there that need to be addressed, but if targets are going to go beyond more than being simply aspirational, we need a much more sophisticated approach to target setting and we need robust data to underpin them and a clear idea of the measures to achieve them.

I think the other thing on data I would say, commissioner, is beware of comparisons. In Australia, reliable and comprehensive data simply does not exist. Even in Europe, member states have only harmonised their data collection methods

to a limited extent, so national returns are not necessarily comparable. I think it's also important to recognise that in Europe, recycling tonnages are calculated on the basis of material actually delivered, not the output. The difference there can be as large as 30 per cent.

I think another important point for the industry is the role of regulation. The debate here often simplifies to an extent where it simply becomes a debate between voluntary approaches and regulation, legislation and so on. But the more interesting issue and the one which I believe holds out the better prospects, is how do we devise an approach which allows supply chain influence and commercial factors to come into play to achieve environmental outcomes. In other words, what's the right mix and what policy options are open to governments, with the objection not of being prescriptive but rather to prod the supply chain into appropriate action? That's what we've tried to do through the covenant, with some success but certainly not with total success.

Legislation and regulation tend to be fairly blunt instruments: taxes, bans, levies and targets which are invariably set somewhat arbitrarily. Highly prescriptive rules I believe are unlikely to find the right way forward and will suffer the consequences, in a rapidly changing world, of soon being outdated. Many of the things which are crucial in this issue can't be covered by legislation. You can't mandate better packaging design. You can't mandate lower amounts of material per unit of packaging.

So what we've tried to do with the covenant - and I think it's an important issue - it allows us to focus on issues such as sustainable design, production and distribution issues, as well as the more traditional recovery and recycling aspects. There's a very good example of the sorts of things that are achieved in that respect. One of them is the George Weston example, I refer to it, where their product's redesign led to something like that 4500 less pallet movements and a hundred less truck movements. Now, some of the traditional policy options which are considered by government are simply incapable of delivering or even addressing that sort of issue.

MR WEICKHARDT: Sorry, that was a redesign of a packaging product?

MR WILLIAMS: Yes, which meant that you could fit more product onto the pallet, which meant that there were fewer truck movements to transport the thing. Now, to my mind, there's progress which leaves some of the traditional methods for dead. I'm not saying that's universal, but that's the sort of thing that we should be encouraging and which more traditional measures of policy options simply don't touch. So one of the things we're doing now with the covenant is basically saying, "You've had five years of the existing covenant, so we're ratcheting things up a

notch." There are KPIs, and we're trying to get greater emphasis on quantifiable outcomes. By and large industry supports that and is happy with it.

One other final point, as my 10 minutes is just about up, in devising policy options, I think it's important to recognise increasingly over the last 10 or 15 years that packaging is an internationally traded commodity; both packaged products and empty packaging, and some of my members would say that their biggest competitors are not necessarily Australian companies, but are companies in China. So what they are saying very loudly and very strongly is that policy options have got to apply to all, and if they don't, the Australian product will be disadvantaged. Thanks.

MR WEICKHARDT: Okay. Thank you very much indeed. You've, in your submission, raised a number of very important and quite interesting issues, and I'd just like to pick through a number of these. I'm sorry, this might not be a particularly sort of coherent way, but forgive me for jumping around the place. One comment you made on page 23 is that:

> Councils are constrained in the way they can set charges and raise revenues -

and you say:

> These provisions prevent councils implementing fully commercial and flexible charging arrangements for waste services -

and don't by implication allow councils to introduce sort of a variable rate or a "pay as you throw" type rate. What is the inhibition on councils in terms of raising rates?

MR WILLIAMS: Can I just talk about councils, and one of the points we've made in our submission is that by and large, there are I think something like 670-odd councils in Australia who are responsible for waste management services. In terms of other issues like water and electricity, those things in most major cities are handled by two or three agencies. It just seems to us in this situation that local government providing the service through 700 or so local councils is inefficient.

There is very, very little coordination between local councils. There have been attempts with certain councils in New South Wales and Victoria to have regional waste groups, waste boards and so on. But that basically hasn't got very far. I think also you have a situation where councils are responsible for these issues, but they increasingly co-opt private sector to assist them in that role. I think the question there is that they are at a considerable disadvantage with companies whose role it is to do this on a regular basis, and they simply don't have the same range of expertise and so on.

The other point we make there is that the waste management companies by and large are not interested so much in waste minimisation, but they are interested in making profits out of the services, and that's a legitimate aim. So I think the bottom line in all that with rate capping and those sorts of things is that councils are at a serious disadvantage, and what we've suggested there gently is that we need to look again at the system of 700 councils being involved in delivering waste management services. Is that a sensible way to do it? I think increasingly in this day and age one would have to say now.

MR WEICKHARDT: I have personally some sympathy for that issue. But we will pursue that separately.

MR WILLIAMS: Can I just add on that, I understand the politics of it and it's a very difficult issue, but it seems to me a fundamental issue that if we want to get a more efficient system, that's an issue that at least needs to be on the agenda.

MR WEICKHARDT: That having been said, if I can just bring you back to the comment here. Your comments seem to suggest that notwithstanding the fact that it might not be a very efficient system, local governments at the moment are responsible for collecting waste, and they charge ratepayers for that, and lots of local governments have said their ratepayers really like recycling and they're into recycling and they'd pay more for better recycling. What is it that stops ratepayers being charged more by councils for different services or a variable rate for their services?

MR WILLIAMS: I think on that issue, councils are constrained in certain cases by rate capping which has been a difficult issue. I think there's also competitive issues between various councils. I think no-one likes to increase rates. So I think that fundamentally is the constraint. There are also some views that in fact, in terms of tenants and so on, it's not the ratepayers who are paying, but it's actually the tenants - sorry, the owners of the property.

MR WEICKHARDT: Yes. I could take that point, although with separate metered electricity and stuff like that, those costs tend to be passed on to the tenant. If we make a sort of general comment into a question, you argued fairly eloquently that packaging is a fairly small amount of the waste stream.

MR WILLIAMS: Yes.

MR WEICKHARDT: You've also made the point that recycling everything to the ultimate extent is not necessarily value-adding, and there are limits to the value of pushing that envelope too far. If I took all those points together, I'd say to you, you, notwithstanding all that, as an industry have embraced the National Packaging

Covenant totally. Is this simply because it's the lesser of two evils or do you believe the amount of time, effort and focus that government and industry are applying to this area is actually misplaced?

MR WILLIAMS: I certainly don't believe it's misplaced. Can I go back in time to the first covenant and why we went down that track. It was the mid-1990s. At that stage there was real concern that different states were going to introduce their own systems, and that for companies who were in the business of either producing packaging or producing packaged products, that they may have needed to develop one set of packaging for New South Wales and another one for Victoria. These matters are fundamentally state responsibility.

So there was a real concern that you could get fragmentation and you could have not a national system, but a state-based system. Second thing at that time, there was a defensive element in that in the sense that Europe was all the rage, the German DSD system was being spoken of glowingly by officials, it was being seen as a model, and it was being advocated by community and environmental groups. The third factor was this; that I think industry by and large had not fully engaged with governments on these sorts of issues. It was always in the business of saying, "No, no, no."

So for all those reasons we felt that it was time to sit down and put together a situation which produced a national system; had all the packaging supply chain involved, from retailers down to raw material suppliers. That was cost-effective. So that was really the modus operandi behind industry thinking, and when Brian Robinson from the Victorian EPA came to us to talk about these sorts of things, that's the reason why we embraced it. I think very, very largely, it's achieved what we set out to do. We had got a system where previously there were three national agreements covering three material-specific packaging types with about 30 companies. It simply wasn't going anywhere. The danger was that if industry wasn't more proactive and more - cliche - working cooperatively with government, we ran the risk that we'd have a serious break-up state by state. So that was the thinking behind industry at the time.

I think very, very largely, the packaging covenant has been a considerable success. We've talked to about 600 companies. A review of action plans show that 70 per cent of them had made a real effort. I gave you that George Weston example of the sorts of things that were happening, albeit not on a universal basis, real progress that's been made. Under the new covenant, we've got a set of KPIs. We're requiring CEOs to sign off. We've got an environmental code of practice. So as I said, the thing has been ratcheted up. I firmly believe that in terms of outcomes, it offers a far, far more imaginative, flexible and outcomes-oriented approach than some of the other policy options that are being considered.

MR WEICKHARDT: If we can just pursue that. If you were the benign dictator of Australia and you were all wise and your only remit was to look after the long-term welfare of your citizens, economically, socially, environmentally, with long-term views on sustainability and all that sort of stuff, and therefore you weren't being threatened by states doing their own thing, which would have been a disaster, would you have advocated a policy along the lines of the National Packaging Covenant that - would that have been a priority in your mind?

MR WILLIAMS: If I was a dictator nowadays, I'd be requiring all companies in the packaging supply chain to sign up to the covenant, because I think on those issues of design and production and logistics, it is light years ahead of the other sort of command and control approaches which are so often talked about as an alternative. In terms of the covenant, I think what we've managed to achieved - and most other schemes wouldn't even address them - the whole issue on a supply chain basis from retailers down to raw material suppliers. So if I was that benign dictator, I'd be saying, "Sign up to the packaging covenant or else."

MR WEICKHARDT: You've talked about retailers, and yet I understand the two largest retailers haven't signed up.

MR WILLIAMS: The two larger retailers were signatories to the first covenant. Aldi was a signatory to the first covenant, is a signatory of the second covenant. Coles Myer presently has its action plan being done, and I expect and hope that they will be a signatory in the near future. On the general point, however, I think your question is absolutely valid. The involvement of retailers is critical to the success of the covenant.

MR WEICKHARDT: So why aren't Woolworths signing?

MR WILLIAMS: You would have to ask them.

MR WEICKHARDT: I'm sure they've told you.

MR WILLIAMS: No. I think there are issues, for example, about plastic bags, which is coming into the covenant for them. The plastic bags issue is coming under the covenant. The governments want phase-out. I think both major retailers are working hard to reduce the amount of plastic bags and there's been some success. However, I think they are concerned that if ministers require a phase-out, that they want to see the implications of that on their operations before committing.

MR WEICKHARDT: On that issue specifically, and more generally on the targets that have been set for different recycling levels, do you think that the processes that

government talk about, that they in principle believe in, that objectives for regulations should be set, that they should look at the different options for actually achieving those objectives and they should look at the costs and the benefits and the alternatives, and the consequences of different regulation, do you think when you look at the targets, whether it's for plastic bags or for recycling, that those sort of costs and benefits and alternatives have been really examined properly?

MR WILLIAMS: I think there's no doubt about the answer to that question. The answer is no. For example, let's take the recycling targets. When we were discussing the issue in the context of the covenant, I think it's true to say that - and putting it in somewhat colourful terms, I think the assumption of governments was that recycling is good, more recycling is better, and a hundred per cent recycling is environmental heaven. You can recycle anything if you're prepared to pay the cost. The question seems to me not whether recycling targets should be higher, but in making them higher, do they deliver a benefit to the wider community, and there are economic and commercial factors involved in that. Any material is recyclable if you're prepared to throw enough money at it.

That's an issue for the wider community. I suspect the answer is governments are careful about this area because they know that large sums of money are involved. So I don't think we have a rational, thought-through basis of where that cut-off point is, and it certainly wasn't evident in the discussions on setting targets in the covenant. Ministers basically decided they wanted a 65 per cent charter.

MR WEICKHARDT: Given that and given the covenant I think probably means that there are two parties who have agreed to it.

MR WILLIAMS: Yes.

MR WEICKHARDT: Why didn't the industry agree to it? Was it just at the point of a gun?

MR WILLIAMS: No, because one of the key issues was where are you going to get that extra recycling from? At the moment we reckon we're about 50 per cent. Getting it up to 65 per cent is going to be a big ask. Where are the gains to be made from? I think there's certainly a view that in some states, you can get more out of the kerbside system, greater efficiencies and that sort of thing, but the real gains are to be made in away-from-home recycling - the pubs, the clubs, areas like Southbank, Darling Harbour and so on.

So one of the things that the covenant stressed, the minister stressed, was that these weren't simply industry targets; that they were targets for the entire system, for local governments and for governments. One of the issues for example that a local

government representative on the covenant council, who has just left, was making a point that if you really want to get more out of pubs and clubs and that sort of thing, state governments have the capacity to make licensing arrangements conditional on a suitable waste management plan.

So it raises a whole host of issues which are relevant to industry, but are also very, very relevant to government, and I think in that area, it's probably a case where we'll be looking for governments to address that issue more so - the policy issues really lie with government rather than with industry. So you can get more out of the system and there are certainly some areas where I suspect there's some easy yards to be made, and away from home would be one of those.

MR WEICKHARDT: I think you're saying that the targets are a guess, and it's anybody's guess as to whether or not that's a cost-effective outcome for Australia.

MR WILLIAMS: Yes. I come back to the point I made in my opening remarks. If it's an aspirational target that we should all really strive for that, I don't think there's much harm done. It focuses the mind, it causes us to address the issues that we really need to address. But under the targets, for example, we've got a range 30 to 35 per cent for plastics. If we achieve that, we will be doing considerably better than the EU. We will be streets ahead. So are they a big ask? Yes. Will we achieve them? I think it's debatable. But the achievement will depend not only on industry, but also on governments putting in place policy issues, for example about away-from-home recycling.

MR WEICKHARDT: You mentioned that you think packaging companies in the main have incentives to reduce packaging costs and waste that are consistent with trying to avoid wastage and damage during transport and things of that sort. Various people who have submitted to this inquiry have talked about their frustration in what they see is excessive packaging, and I guess sometimes that's in the minds of the beholder, but one person highlighted some computer software that they bought that came in a cardboard box with a polystyrene dual container inside that enfolded the polythene container on the outside, then the cardboard, then the polystyrene, and they were left with a compact disc in the middle of it all.

Almost certainly the software came from overseas. The question is what sort of signals can go back from the consumer who might say, "I'm frustrated by that. To me it was excessively packaged. The cost of me disposing of it or the environmental consequences of disposing of this are excessive. I don't want all that packaging on this product. You the designer ought to give it to me in an undamaged state with lower packaging content."

Another example we were given by somebody saying that they had some

household detergent, and they said on the bottom of it, it said, "This container is a hundred per cent recyclable," and they said, "Well, that's reassuring," but when they opened the container, it had a plastic handle on a polyethylene-coated container with a metal spout on it, and they said, "In theory it probably is recyclable, but the cost of recycling it almost certainly are prohibitive. So it will probably in all certainty go to landfill." They were making the point, there's no signal in that situation to go back to the designer of the packaging. How do you think this should work in getting a better outcome in some of these circumstances?

MR WILLIAMS: Can I make a number of comments to your question. That first person, did you ask him whether the product had got to him in a safe and sound and useable condition?

MR WEICKHARDT: I think that was the assumption.

MR WILLIAMS: Yes. So that's the first point. I think too many people simply think of a product after they have used it and discarded it. So that's the first point. The second point, by far - I come back to the statement I make, by far the biggest incentive to reduce packaging is a commercial one. If you use excessive packaging, the product will cost more. If your competitors don't use it, the price will be cheaper. That seems to me the biggest incentive in the competitive environment where consumers shop around for cheaper products that if you use excessive packaging, meaning more packaging than is necessary, then the price of the product is going to go up. So I think the biggest thing there is the competitive pressures that exist.

MR WEICKHARDT: In some product lines I accept that. There are some extremely high profit margin products where manufacturers are clearly seeking to gain the attention of the consumer and there is a large degree of marketing that is trying to say, "Pick me. I want to stand out."

MR WILLIAMS: And I think that's a legitimate role of packaging because on the supermarket shelf for example, there are something like 25 to 30 thousand items. What they've got to do, when consumers go down that aisle, the packaging is the selling device. It's got to say, "Pick me." So I think that's a totally proper and legitimate role for packaging to shout out to the customer and to sell the product in a way that's superior.

Can I come back to another point. We often get examples of the sorts of things that you've spoken about, commissioner: one or two examples. Again I think the point needs to be made that - let's take a supermarket. In a traditional supermarket today, there are 25 to 30 thousand items. If you're asking me are there no examples where there's over-packaging, clearly I'll say no. Of course there are. Of course we've all experienced them. But even if you come up with in a traditional

supermarket, let's say a thousand. You're only talking about 3 per cent of the goods on display in a traditional supermarket nowadays. So again I maintain the point that over-packaging, excessive packaging, while it exists, is a small issue for those very sound commercial competitive reasons. I think that's the way to do it.

Two other points: in a globalised world, packaging is coming in from all parts of the world including Europe, which is the home of minimal packaging and so forth. So those products are on the supermarket shelves. So if Europe is the home of minimal packaging, certainly consumers have the opportunity to buy that stuff in Australian supermarkets and elsewhere. Another point - you mentioned recycling, and one of the issues I think that needs more careful consideration in the debate is that there is a tendency to say that if packaging is recyclable, that's the test of its environmental credentials.

What about the packaging that is multi-material, but keeps food fresher for longer? There's a balance there, there's a trade-off, and people don't buy packaging, they buy packaged products. So there is a balance there between the packaging and its recyclability, but keeping food fresher for longer. Where does the environmental balance lie? All I'd suggest is it's not as simple as simply saying packaging that's more recyclable is intrinsically better.

MR WEICKHARDT: Sure. I accept that point entirely, and you've made it well, and I think it's a very relevant point. My question was more is the sort of disposability of the plastic contrasted with all those sort of issues - and I accept the fact they're trade-offs, but does the current arrangement under the National Packaging Covenant give the designer of the packaging correct signals to at least bear in mind disposable issues and cost do you think?

MR WILLIAMS: Under the new covenant, we've got a strengthened environmental code of practice which companies have got to take into account in considering these sorts of issues. So that's one of the areas where we're strengthened. So I think in covenant mark II, the signals are certainly stronger. We've got a whole range of KPIs which weren't there in covenant mark I. So as I said, the things has been ratcheted up. It's tighter, it's tougher, but I think it's still flexible and a cost effective system.

So are the signals perfect? No. Are they better than they were and tighter and likely to result in that sort of outcome? I believe under covenant mark II, the answer is yes.

MR WEICKHARDT: We've had one example quoted to us which sounds as if it was resolved. I'd be interested in your comments as to how it got resolved and whether it's a consequence of the covenant or despite it, of some PET soft drink

container that was at one stage being labelled with a PVC overwrap as a label which was inhibiting the PET being reclaimed and recycled effectively. I'm told that that label design has now been changed to paper which is not causing a problem, but was that a sort of, if you like, a good outcome from the sort of principles of the National Packaging Covenant or was it solved in a completely ad hoc or accidental manner?

MR WILLIAMS: I think what the covenant does is - there are two things. Firstly the covenant process provides a forum for considering and raising these issues and a forum that never existed before. Secondly I think in terms of issues like the environmental code of practice, it gives the supply chain greater capacity to raise these sorts of issues and to push the issue with their suppliers. So I think those sorts of things, pressure is much, much stronger now than it was, particularly with these recycling targets that industry needs to address the practical implications of those sorts of things. There's certainly been evidence that that's been happening.

MR WEICKHARDT: Okay. You say, "The average value of a tonne of recycled material is around $63 a tonne." Obviously it fluctuates, but you're saying:

> It costs around $227 per tonne to collect and sort the material. The difference is paid by ratepayers as part of their annual garbage service fee.

There's a fairly big gap between those two numbers; certainly a bigger gap than the cost of sending the material, say, to landfill, even a properly designed and managed landfill.

MR WILLIAMS: Yes.

MR WEICKHARDT: In those circumstances, if you were going back to your role as a benevolent, all-wise dictator, is this the best use of society's resources; to be collecting this material with that value or do you agree with some of the fairly large numbers that have been asserted by people, like ITU Nolan, as to the other, if you like, apparently uncosted eco-benefits of these recycling programs?

MR WILLIAMS: When you say the "uncosted eco-benefits", what are you referring to there?

MR WEICKHARDT: They go through a fairly complex total lifecycle analysis and look at the replenishment costs of the virgin materials and assert fairly large charges for those, and there are arguments about sustainability and resource depletion that put pretty large values, and therefore benefits, on the recycling and recovering option. I'm not wanting to put their words in your mouth, but I'm just saying if you were - given those numbers you've cited, why do you think we're doing

all this?

MR WILLIAMS: A couple of reasons: community expectations. I think there is a real attachment to recycling program, kerbside recycling.

MR WEICKHARDT: But is that ill-informed?

MR WILLIAMS: No, I don't think it is. I think there is considerable merit in recycling, but it comes back to the issue that we were discussing earlier about to what point does it deliver benefits. Let's take an obvious example. Does it make sense to collect in Darwin and return those materials to Sydney or Melbourne for recycling? My view would be unlikely. The second thing about these recycling issues and so on, there have been various figures as to how much they cost. Certainly some environmental and community groups have used the figure of 300 million. Whether or not that's correct, we would dispute it. But you put that against the figure of 20 million Australians, you're talking $15 a head.

That ain't a large figure, and if the system is effectively running at $15 a head, the question would have to be asked about whether that's a large sum, and I would say on that basis we're doing remarkably well. If you divide that further down to the number of packaged items that we each buy on a yearly basis, the figure becomes infinitesimal. So that's a way of saying that the externalities issue addressed by some really doesn't amount to very much indeed, and that overall what we're achieving in Australia in terms of recycling - we're achieving 50 per cent and we're doing it in a way which is extremely cost effective, and certainly much, much more cost-effective than European examples.

So in terms of value or money, we're doing well. The question really is where's the point where diminishing returns cut in, and in recycling, like any other process, comes to have negative returns, and that's the point we don't know.

MR WEICKHARDT: On that score, you say under your recommendations:

> Allow the introduction of direct price signals to households, possibly charging a nominal annual fee for recycling services and an annual fee for garbage, plus a fee for pick-up using bin-reading technology widely available.

First of all, following your logic, do you think the price signal is going to be sufficient to actually motivate anyone to do anything, and isn't there a big danger that if you actually provide price signal that says, "Put more into recycling and less into your domestic waste bin," you're simply going to increase the amount of contamination in your recycling bins?

MR WILLIAMS: Yes, and I think that's one of the dangers that's happening at the moment; that you're getting considerable contamination. So clearly that issue would need to be handled carefully. But if recycling has a value, it seems to me - and people sort correctly and put into recycling bin rather than the garbage bin, if that's considered by the community as a desirable environmental outcome, people who do that should be charged accordingly and should get some incentive accordingly. So that you send the price signals that recycling is a desirable option.

MR WEICKHARDT: Based on the numbers you quoted before, it's a fairly small price signal.

MR WILLIAMS: Yes, I agree.

MR WEICKHARDT: Somebody talked before about switching off the lights. Getting your kids to switch off the lights is a hard enough signal to get through, and your garbage one might be even harder I suspect.

MR WILLIAMS: It's still a desirable thing to encourage your kids to turn off the lights.

MR WEICKHARDT: Correct. I'm not arguing against that. You provided a pretty solid set of arguments against container deposit legislation, and yet we've got another state in this country in the west now saying that they are actively wanting to implement a container deposit legislation scheme. Given the points you've made here and the example you've analysed of South Australia, why do you think Western Australia is seriously considering a container deposit scheme?

MR WILLIAMS: I think it has certain popular appeal. The arguments I think against container deposits are not only mine. If you look through the literature over the last 15 to 20 years, no issue has been done to death as much as this. The vast majority of reports, independent reports - some by industry, the Industry Commission, various other bodies - have looked at this and basically have concluded that it is not the way to go; that it doesn't provide the policy options that governments should pursue. When I say "the vast majority", certainly not all. There have been one or two studies which have taken another view. So that's the first point. It's not simply an industry position. I think many of the studies have recommended against its introduction.

Secondly, the South Australian case is a particular case. It was introduced before kerbside. It does marginally reduce beverage container litter, and increases the rates or beverage container recycling. But again studies like Victoria and ACT studies show that if you introduce that with kerbside systems already in place, that it

will increase the cost, and also that it will compete with the kerbside system for those materials.

So that's essentially the reason we believe that it's not worth the fight. Beverage containers make up I think less than 5 per cent of domestic waste stream, about 10 per cent of the litter stream. So what you're talking about is something which handles a very, very small proportion of the issue. It doesn't touch 95 per cent, and also coming back to some of the issues that we were talking about earlier, CDL doesn't touch the design issue. There's no difference between containers designed for use in South Australia than elsewhere. It doesn't touch that distribution logistics issue. It doesn't touch the production issue. It's absolutely silent on those issues. I'm simply amazed that it has become the catchcry that this is almost the solution to our problems. It covers 5 per cent or less of all the waste stream.

I thought this question would come up, and I was reading in the US - a chap by the name of Syrek - Dan Syrek - who shows that under US conditions, beverage container deposits are by far the most expensive way of eliminating one item of litter, and I will give this quote clearly in the context:

> Beverage container deposit programs are also a very expensive way to reduce litter since it does not appear to have any significant effect in reducing non-container litter. As a consequence, the added handling cost of the redemption system must be absorbed solely by the reduction of covered beverage containers in litter. Based on a conservative estimate of a little over 2 US cents per container to maintain a redemption system, this works out at a cost of $US3.42 to prevent the littering of one container.

I think the overwhelming evidence suggests that container deposit legislation is not the effective way to address these issues in an holistic sense that we've been talking about.

MR WEICKHARDT: I'd be interested in that reference. We were curious about the source of the information, which is all very pertinent of course. I'm a bit sceptical I have to say of statistics that talk about the cost per item of litter because if we got to heaven and we had only one item of litter in the City of Melbourne, we could probably work out it cost a million dollars to pick that one item up. But that probably still wouldn't be a bad outcome.

MR WILLIAMS: And I endorse wholeheartedly your scepticism about statistics. I think we need to be inordinately careful about comparing these sorts of things.

MR WEICKHARDT: Yes. You say that in South Australia they have the second lowest recovery rate for non-organic domestic waste, and you suggest that this is caused by CDL.

MR WILLIAMS: Yes.

MR WEICKHARDT: I can accept the fact and understand intuitively that the cost-per-unit item of the recyclables goes up if you drag the CDL products out of the recycling stream. I'm struggling a bit to understand, however, why it would reduce the volume. Intuitively I guess some of the failure to collect some recyclables may be that the recycle bin fills up. If you haven't got beverage containers in the recycle bin, that at least makes room for the paper and the other stuff. So why does CDL reduce the volume of recycling?

MR WILLIAMS: Because I think you'll find in some South Australian councils that kerbside system either isn't as extensive or doesn't operate at all. I think that's, as I understand it, the fundamental reason.

MR WEICKHARDT: So if you had the same level of kerbside collection and you introduce CDL, you don't think it would necessarily detract from overall.

MR WILLIAMS: But you'd be paying more for it.

MR WEICKHARDT: Sure. So it's a cost thing.

MR WILLIAMS: Yes, it's a cost.

MR WEICKHARDT: Okay. Thank you for clarifying that. In terms of solving or at least addressing the littering issue, the CDL proponent - that's the best way of trying to recover containers, particularly those consumed away from home.

MR WILLIAMS: Cover less than 10 per cent of the litter stream.

MR WEICKHARDT: I accept that fact, and I'm horrified that the counts that we've seen from other people of cigarette butts and other things, but do you have any suggestions of how the litter stream, which contains packaging material as well, not CDL packaging - chip packets and things like that - - -

MR WILLIAMS: Exactly.

MR WEICKHARDT: What are your suggestions of how that litter problem can be tackled more effectively in Australia?

MR WILLIAMS: I guess my fundamental issue here is that often the packaged product is held to be responsible for this. It seems to me this is a social issue, social behaviour, and requires extensive community education. Let's look at the litter issue more broadly. We talked about data. Still in this country we don't have a national method of measuring litter, what states are successful, what are the sorts of policies that we should be introducing to reduce litter. So again in terms of data, that's an issue that we need to address more effectively than we have.

We need to run extensive education programs to make it clear that this sort of behaviour isn't to be tolerated. I think also that some in industry - and again particularly the beverage industry - has been very, very active on this issue over a number of years. But it fundamentally comes down to social behaviour and social issues which governments need to address and educate.

MR WEICKHARDT: Okay. Final question from me. You mentioned that the recycling numbers that Germany quote are around collection as opposed to recycling, and you cite a fairly high collection level and lower recycling level. What happens to the rest of the material in Germany? If they collect it, what do they do with it?

MR WILLIAMS: Contamination and other stuff like that - and I'm indebted to David Perchard here, who you may have heard of, but David makes that point; that the difference can be as high as 30 per cent. So on those sorts of figures, the German figures 74 per cent come down much, much more closely to ours. It either goes to landfill or goes to waste to energy is my understanding. It is simply not recycled in the traditional sense.

MR WEICKHARDT: Thank you very much indeed for a thoughtful and very useful input to this inquiry.

MR WILLIAMS: Thanks.

MR WEICKHARDT: I appreciate that.

MR WEICKHARDT: Ladies and gentlemen, that concludes today's scheduled proceedings. For the record, is there anyone else who wants to appear today before the commission? If you could just give your name and who you're representing, please.

MS HENTY: My name is Jenny Henty. I'm the director of the Zero Waste campaign at Environment Victoria. Environment Victoria is a non-government environment group here in Melbourne. We're a membership-based organisation, a not-for-profit group. We're also a member of the Boomerang Alliance that did send a submission to your inquiry. I just wanted to make a few points about some of the evidence that I've heard presented here.

First of all, on product stewardship schemes and their definition, I consider that something like the oil stewardship scheme is a product stewardship scheme. I think it provides a feedback loop, it provides a funding mechanism. It provides data, and all the things that I consider a good product stewardship scheme should do. Similarly mobile muster, the AMTA - Australian Mobile Telecommunications Association - scheme I consider to be a product stewardship scheme. I think the success is not yet proved, but it has funding mechanism, it has a collection scheme. The industry association is taking responsibility in that way. It has dedicated resources.

Similarly drum muster, I don't know too much detail about that. However, plastic bags, there is no scheme at the moment. There is no scheme at all in place. It's a vacuum at the moment, and to say that there is a scheme is not true. National packaging - - -

MR WEICKHARDT: Sorry, I got the impression - I don't know whether this is the impression I was supposed to get, but I got the impression from our last participant that there was some proposal to bring plastic bags under the National Packaging Covenant. Is that your understanding?

MS HENTY: It's very complicated. The plastic bag code of practice was included in the National Packaging Covenant as a schedule to the covenant. However, it expired in December 2005. So there is now nothing there at all.

MR WEICKHARDT: Okay. So it's in limbo-land at the moment.

MS HENTY: It's in limbo-land, although as you heard from the Commonwealth this morning, they are drafting some suggestions for ministers who will make decision in June. But there is no scheme at the moment.

The National Packaging Covenant I wouldn't consider a product stewardship

scheme in the same sense as the other ones that I've mentioned. I don't think that there's a funding mechanism for taking back packaging, ie making recompense to local councils that collect it. There's no feedback information loop. There's no funding loop. It's really just an awareness raising scheme in my mind.

MR WEICKHARDT: Are you suggesting in your mind that a product stewardship scheme ought to have some sort of funding mechanism involved in it?

MS HENTY: I think it should. I think you need feedback loops both in price and costing and in, as you were pointing out, design.

MR WEICKHARDT: Because product stewardship is generically - since the pharmaceutical industry I think coined the term 30 or 40 years ago was really simply trying to take account from cradle to grave or a materials use and disposal and total lifecycle, and I guess there seems to be certainly a blurring between the use of that term and extended producer responsibility and advanced deposit charges. There's a sort of continuum that appears to be being applied.

MS HENTY: That's right.

MR WEICKHARDT: Okay.

MS HENTY: I'll move on from that, although I would like to also - just on externalities, I think from some of the evidence I think you would conclude that business has no responsibility for the fate of their products at the end of life given that if landfills are managed properly, then the externalities to do with that is fairly low. However, I think if you included embodied energy in the calculation and you had a price on carbon, then you would have business having to take responsibility for product waste, because that embodied energy would be lost or you would have a case where the price of products would be higher because carbon would have a price and the embodied energy in those products would make the cost higher. I'm not putting it too high.

MR WEICKHARDT: That's a replacement cost issue.

MS HENTY: I think I'm trying to speak about the externalities associated with products, and if you take into account the embodied energy and the loss of that through going to landfill, then the externalities would be quite high, and if we had a price on carbon which reflected in some way greenhouse gas emissions and methane emissions, then perhaps throwing a production line which is a one-way street to landfill wouldn't be the best way to go.

MR WEICKHARDT: There are two separate issues, aren't there, there? One the

greenhouse consequences of the material going to landfill, and the second is whether or not we're wasting energy.

MS HENTY: That's right.

MR WEICKHARDT: Some plastic materials going to landfill are going to be completely inert and not give rise to any greenhouse gas emission.

MS HENTY: That's correct.

MR WEICKHARDT: So there's a lot of embodied energy in them which either might be recovered by recycling or it might be recovered by an energy from waste-type schemes.

MS HENTY: Yes.

MR WEICKHARDT: Okay.

MS HENTY: I just wanted to make a point about the consumer not being the same person as the ratepayer, and I think that's been dealt with by a number of submissions. As a consumer and as a ratepayer, I don't particularly want to be paying exorbitant amounts of money for recycling if I reduce its source, do a lot of reuse in the way I purchase things, mulch and compost myself and so on. I think they're completely different and I think also you raised earlier that perhaps waste should be - charges should be passed on from the owner to the tenant or something like that so there was some comparison. I've got no problems with councils charging by weight.

MR WEICKHARDT: At the moment you do get charged regardless of whether you're a diligent recycler or not.

MS HENTY: Exactly.

MR WEICKHARDT: I guess the question comes down to the costs versus the benefits of changing that system to a sort of "pay as you throw" type of system. The problem is if the numbers that the last gentleman cited are correct and it's $15 per person per year, how much of a price signal does that really send you.

MS HENTY: You'd have to take into consideration population growth, affluence, technology, all sorts of things. I don't know when that figure was calculated. Just a thing on the gas cylinders which came up earlier, I'm sure my husband just trades in and does a swap on gas cylinders.

MR WEICKHARDT: You can do that, but if you own the gas cylinder yourself as opposed to one of those refillable recycling schemes, after 10 years it becomes out of date, and you either have to pay a lot of money to get it reregistered or you have an old cylinder that can't be refilled.

MS HENTY: I do realise that. I'm just talking about in the future maybe there's a scheme that could be set up so that it is just a hand-in swap, trade-in type situation.

MR WEICKHARDT: Yes. I think that's probably the way to go.

MS HENTY: Finally just a comment on CDL, I think that actually CDL does not undermine kerbside systems because I think that people have a loyalty to the kerbside system and they may just use it anyway, in which case council actually reaps the benefit of the deposit and gets paid for picking up. I think also that a lot of the assessments done on CDL or container deposit schemes that have been done in Australia have been done on using certain variables, and there's so many variables that you can use in these studies that - the White study for example used a 10 cent deposit, they used front of retail store take-back which was highly costed and so on.

So the variables that were used in these studies ended up coming out with conclusions that said this is very expensive. Similarly the South Australian model in our view is not the best model, and I think that's why Western Australia is looking at best practice models that they could implement.

MR WEICKHARDT: Which you think are what?

MS HENTY: The South Australian model is costly for a number of reasons. They have depots which can be far from people's homes. The have to do brand sorting, and I think that's the major problems with it that industry doesn't like. If you have a system where you have local collection systems that might be new technology, reverse-vending machines at convenience stores at 7 Eleven type stores or supermarket carparks where people can just pop them into a machine and get a voucher or a discount or something, it's convenient. If you have a system where you don't have to have brand identification, again that lowers your cost.

So I think WA is looking at all these different variables to see if it's possible to get the cost down, make it more efficient, and I think a lot of these things also from our point of view - and this includes CDL, plastic bag levies, whatever - it's about consumer behaviour and you were talking about litter, how do you get that across - the littering behaviour. I think people just - they've got so much information on the label of a product that we can't expect everybody to read and understand it all, particularly when it's very misleading like a lot of labelling on packaging, and what we need is a price signal, and I think most people would understand it and want to

follow that sort of thing.

I have heard to day that community perception is positive around CDL because they've had experience with it before. It gives community groups and scouts and all that sort of thing fundraising possibilities, and people are ready and understand reduction at source, which is what a plastic bag levy is all about. It's not about a tax. It's about actually reducing by bringing in reusable.

MR WEICKHARDT: What sort of reusable containers have you got in mind? Are you comfortable with the green bag scheme?

MS HENTY: I am, as long as the green bags can be recycled, and I realise that they're plastic, too.

MR WEICKHARDT: I must admit, as we've heard various submissions on littering and people have continued to point out that cigarette butts are the major source of litter by count, that introducing a scheme that requires a smoker to bring back 20 butts of cigarettes before they can buy another 20 cigarettes would seem to me like a good scheme.

MS HENTY: Excellent, yes.

MR WEICKHARDT: That perhaps betrays my prejudice.

MS HENTY: I think that's probably all the comments I wanted to make. I commend you the Boomerang Alliance papers. We've looked at these issues extensively. A lot of the issues are being workshopped around market-based instruments, where they should be applied, how effective they are and so on. We're doing a lot of work in that area. So I commend you those papers.

MR WEICKHARDT: Thank you very much indeed. Thank you for your comments. I think I can sight that there are no external members of the public left. So I hereby adjourn these proceedings, and that finishes the public hearings for this round of this inquiry. Thank you.

AT 5.36 PM THE INQUIRY WAS ADJOURNED ACCORDINGLY

INDEX