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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 CANBERRA ON MONDAY, 20 FEBRUARY 2006, AT 9.00 AM

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 Philip Weickhardt and I'm the presiding commissioner for 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, industrial, construction and demolition wastes.

We've already talked to a range of organisations and individuals with an interest in the issues and submissions having come into the inquiry, following the release of an issues paper in December. We are grateful for 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. Following this hearing in Canberra, other hearings will also be held in the next few weeks in Melbourne, Adelaide, Brisbane, Sydney and Perth. We will be then working towards completing a draft report for government by the end of May, having considered all the evidence presented at the hearings and in submissions, as well as other relevant information.

Participants in the inquiry will automatically receive a copy of the draft report. We like to conduct all hearings in a reasonably informed 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 the proceedings for the hearing I will 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 Productive 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 in 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 requirements of the Commonwealth occupational health and safety legislation, I'd like to draw your attention to the fire exits, evacuation procedures and assembly points. First of all, the fire exit doors straight through these doors and along the path past reception at the main exit. I'm sure the fire alarms will be pretty self-evident when they go off. The nearest toilets - just for convenience matters - are through these doors and diagonally right along the path, over some red carpet, and to the right of the pool tables. Can I also ask, and I've just reminded myself, to turn off mobile phones or turn them to be silent.

I'd now like to welcome Mr Chris Horsey and Mr Graeme Mannall from ACT NOWaste. If you'd just introduce yourself please for the court report.

MR HORSEY: My name is Chris Horsey, manager of ACT NOWaste, Department of Urban Services.

MR MANNALL: I'm Graeme Mannall, the policy and strategy manager in ACT NOWaste, Department of Urban Services.

MR WEICKHARDT: Thank you. You should assume we've read your submission, but if you'd like to make some comments and we'll then move to some questions.

MR HORSEY: Thank you. I guess I will just give a quick introduction about some of the issues we'd like to cover. I mean, Graeme and I, in a reasonably informal way, will discuss some of those issues that we believe is ACT NOWaste, Department of Urban Services face in the ACT, not only in terms of waste management and minimisation, but also in terms of trying to achieve the ACT government's goal of getting to no waste by 2010.

The issues that we will be discussing here today involve around the significant issue of waste generation levels, not only in the ACT but are facing waste management agencies nationally. We turn to consumption problems and looking at wasteful consumption. There's some concern from our agency about waste generation rates outstripping resource recovery rates, so we're achieving a 73 per cent resource recovery rate here in the ACT which we believe is one of the agencies that are leading the way in the ways of minimisation, with significant concerns that waste generation is outstripping our resource recovery rate. So we'll be talking about that and our concerns around that today.

Also, the need for some Commonwealth leadership in terms of national approaches. We are a territorial jurisdictional and as such have a certain limitations on what we can achieve in terms of policy and regulatory mechanisms in minimising waste, and certainly there is a role for the Commonwealth to assist state and territorial agencies and progressing with waste minimisation goals. Importantly, we'll be talking about the resource recovery industry in the ACT where they've seen significant growth in the past 10 years and some issues that surround that regarding market development and research, and development for market products and expanding existing, and trying to find new markets for these waste derived products.

We would also like to raise the issue of market failure or possible market failure. There's an issue in the ACT that we are quite unsure about, and that is in relation to the take up of recycling services, particularly in the business and industry sector, so we'll be talking about our concerns in that area.

We also will be talking about user-pay model in terms of waste generators, paying the true cost of waste to landfill, and some market threats that are facing the markets that have been established for waste derived products in the ACT. We will also be talking about the cost impost on our community as we advance with waste minimisation. The ACT is very mindful of making sure that the costs imposed on the community as a result of changing waste practises is kept to a minimum and that we make sure that we are delivering waste services, and our waste policies are having a positive impact on the community such that the community is not paying over inflated prices to treat and deal with their waste that may be avoidable.

We will probably also outline some of what we call toolbox mechanisms that we use for what we call our social change agenda. Certainly trying to achieve a goal such as no waste, we believe, is a social change agenda in the waste arena. We believe that there should be a range of mechanisms utilised to achieve these types of waste policies, so we'll be talking to you about that.

Finally, we will be talking a bit about alternative waste technologies in terms of their selection and their abilities to deliver on desired outcomes of certain municipal authorities.

MR WEICKHARDT: Can I just draw your attention to the time.

MR HORSEY: Sure.

MR WEICKHARDT: We do need to finish by about 5 to 10.

MR HORSEY: Certainly. Kicking off, I guess, on the waste generation issue, I have mentioned that the ACT has a 73 per cent resource recovery rate; that is, in the territory we have approximately 750,000 tonnes of waste generated per annum. This is quite a significant waste generation level. We believe that it is one of the highest in the country. Our resource recovery rates certainly have increased over the last decade. We now recover 550,000 tonnes of waste generated here in the ACT. That derives us a 73 per cent resource recovery rate.

The problem that we see is that as our resource recovery rates have significantly increased, so has the total waste generation in the ACT. Now, if we hadn't achieved such a high rate of resource recovery the quantity of waste to landfill that would be experienced in the ACT would have significantly increased, and caused significant pressures on the landfills that we have here in the ACT. I think most municipal authorities understand and have a very sound appreciation of the problems of trying to site new landfills. There is significant issues when we try to do that in today's society. We believe one of the keys in waste minimisation needs to be addressed in the waste generation rate.

MR MANNALL: In terms of trying to deal with a number of the different wastes that we've got, while jurisdictions and the individual local authorities are probably well placed to deal with fairly easy wastes like organics or demolition garden wastes, that sort of thing, a lot of the problems that we actually get come into the more manufactured materials. As an individual jurisdiction, particularly in a small one, it's very hard for an authority such as us to be able to deal with some of those sort of materials. We're usually dealing with companies that are either national or international, and so we see that there's a real role for a more coordinated national effort, that while things are progressing under the Environment Minister's Council and the Waste Working Group, it's painfully slow to be able to reach solutions and implement them.

There has certainly been a significant move towards trying to do things through just voluntary agreements and then co-regulation where that fails. But if we're really serious about trying to actually deal with a lot of more complex materials, I think we need some better mechanisms in place to engage those industries and deal with the materials that they're producing that, as individual communities, we struggle to deal with.

MR HORSEY: Okay, thanks. I'll move us on along to looking at the resource recovery industry in the ACT. The ACT has had a very distinctive pricing strategy where we have deliberately increased the price of waste-to-landfill. There are a number of reasons why we have done this. The ACT undertook a study in 2001 to have a look at the true cost of waste-to-landfill, and that particular study determined the rate of $105 per tonne was the true cost of waste-to-landfill. So that was not just looking at contractual administrative costs; that was having a look at all costs in terms of lost resource value to landfill lost opportunity, rehabilitation and remediation costs, and a range of other costs.

We've embarked on trying to adjust our waste-to-landfill price to reflect this true cost of waste-to-landfill. One of the key reasons why we did this was that we believed that that would be a market force or a market driver in fixing the problem that if waste-to-landfill was always the cheapest alternative, then how would we be able to transition to a resource recovery culture within the ACT.

As we've driven the price of waste-to-landfill up, and we've steadily done this on an annual basis to minimise the impact on our community, what we've found is that the resource-recovery industry in the ACT has started to grow. We have businesses in the ACT that see now that they can process waste for a cheaper price than what we can send it to landfill for. So these businesses in the resource-recovery industry continue to grow. ACT NOWaste has done so

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this country to look at establishing alternate waste technologies, where you just take all of the mixed material into a black-box solution that takes that material and processes that, and some of them produce - it's the old adage "garbage in, garbage out" - there's you know, product that comes out the back end that's probably not very good.

We've been looking at that as a strategic sense of how is the smart way to go. Our view is that there is a real role for alternate technologies, but the answer, or the trick really is to try and minimise the size of those by getting as much of that low fruit out and streaming that into recyclables or you know, sort of mixed dry materials, or other things that essentially means that only the smallest amount of your mixed materials have to actually go there. There is a balance between how far you can drive separation at a household level, or even at a sort of business level. We've explored that, and found that in some areas you can go for a third stream of separating organics - we tried that and found that we could only get mixed results.

So you know, there is a balance between how far you ask people to separate things at source, versus actually taking some of this material and putting it through a processing system. But clearly, from our perspective, we believe that you only want a processing system if it's actually going to produce something of value out the back end, not something that, you know, just is another waste that you've got to deal with; and the organics, which is really what the alternate waste technologies are primarily dealing with is organics mixed with harder material. If we can get that into some sort of form of compost or you know, soil-enhancing material, then clearly it makes good sense that what's coming into the cities were actually starting to produce something that can start to get back out into agriculture, rather than this one-way sort of stream, where everything just goes into cities, we use it, and then either it ends up in a landfill or it's flushed down the toilet.

MR HORSEY: Just comment on one of the points that Graeme has picked up on, in the ACT we ran a trial called the Chifley Trial, which was about the introduction of a third bin system to collect organics. While the trial was reasonably successful, we had about 60 per cent of residents presenting bins on a weekly basis, and about 90 per cent of the overall thousand residents who participated in it, that really took up the organics collection system to divert their organics waste. A major problem emerged in that trial, and that was, even though we had a third bin to take out organics, 30 per cent of that material was still left in the garbage stream. The reason why we looked at a third bin system is that if we can get a cleaner stream of separated organic material, we believe that we could have a much simpler alternative waste management technology and lower the cost of that technology and deliver a better product, and that that product would have much better uses available to be consumed as an end use.

Of course, a third bin system was going to cost money for the community in terms of a collection system. We believe we would still need a more complex treatment plan, because the garbage stream would still have 30 per cent organics in it; therefore, in the ACT we've opted not to pursue a third bin system. One of the key factors, apart from the fact that we'd need a more complex AWT to deal with the organics in the residual garbage was the fact that in the ACT we process garden waste for an extremely cheap rate, one that is probably envious of most other municipal councils. When we look at sending the garden waste - and we recover about 190,000 tonnes of this garden waste through the susceptance and processing facilities that are free to the ACT community.

We looked at, if we contaminated the garden waste with food waste, then we'd ultimately then be required to send the garden waste to a higher-cost processing facility. There would be additional costs around a third bin collection imposed on the community as well. So it didn't make sense to us knowing that because the garbage stream - whether it be from households or from the commercial industrial sector - would be required to go into a more complex treatment facility to run a therbian system and try to get a clean stream of organic material.

I guess this raises an issue for us in the ACT around the cost impost on our community, and we're trying to be smart about minimising that cost impost on our community. To date we're doing quite well, and I just want to share some information with you that will demonstrate what I mean by cost impost on our community. If we can process garden waste for let's say under $10 a tonne, and if we can do that by traditional composting, mulching-type technologies, then we believe that's the way to go, rather than sending your garden waste to an alternative technology that might cost somewhere between 80 and $110 a tonne.

If we can get standard recyclables out through murphing technologies, material recovery technologies that exist and that are present here in the ACT, for between 40 and 50 dollars a tonne, then why would we not want to promote that and get that material out via that technology rather than sending it to an alternative waste treatment plant at 80 to 110 dollars a tonne.

Construction demolition waste we believe we can process here in the ACT and it's happening at the moment at 50 to 70 dollars a tonne. So what we've been looking at is promoting driving different products out of the waste stream at the appropriate technology levels so that we can minimise the cost at which these materials are being processed. Now, there are some challenges around that for us, particularly in getting the waste generators to realise that if they don't separate the waste, or if they don't send the mixed waste that they've got, to the appropriate treatment methodologies, then there will be an unnecessary cost impost on the community.

In the ACT we're actively trying to control that because we believe that in a whole, if we drive out those various subway streams to the right technologies then we can be very efficient in terms of the overall cost of waste minimisation services to the ACT.

MR WEICKHARDT: We have about five minutes left and I have quite a few questions.

MR HORSEY: That's fine. We can rest for that and take questions.

MR WEICKHARDT: Okay. Thank you very much indeed. Thank you for your comments. Can you just clarify your sort of roles and responsibilities, because I think it's correct to say that you are both the regulator in this area and also a service provider. Is that correct?

MR HORSEY: That's in part correct. The ACT government basically operates the two tiers of government, being a territorial government and a local municipal authority. So we are no different than a large local council delivering municipal services to its community, but as a territorial government we also have those state and territorial government functions integrated into us. We do have a Waste Minimisation Act that gives our minister certain roles and responsibilities in the provision of services to the ACT.

However, we are not the regulator in terms of the length of industry. That is done under the Environmental Protection Act 1997 through the environmental protection agencies. So there is still a separation there, but having said that, it is still done by the territory government, but a different arm than ACT NOWaste Department of Urban Services.

MR MANNALL: It also - that dual role means that we do participate actively in all of those national things that are happening with, you know, sort of Waste Working Group and environment ministers, council. So I guess it gives us the capacity of setting a policy framework and implementing it, where in all other jurisdictions you tend to have the separation between the policy happening at a state level and then a lot of the implementation happening at a local government level. So we're fortunate to be able to bring those two together.

MR WEICKHARDT: Does it create any conflicts of interest for you?

MR MANNALL: I think it actually gives us a more balanced view of the world. No, not specifically, but it does duplicate extra effort, and as a small jurisdiction it's very difficult for us to be able to have the resources that most of the other bigger states do to be able to do things particularly in a national way that - you know, we've got half of a person working on national things, where in New South Wales or Victoria they might have, you know, half a dozen people or more doing that.

MR WEICKHARDT: Your submission at the end of it makes a couple of comments which I'd like you to comment on. You say:

> The intention of raising waste costs is not to have businesses pay higher disposal prices, but rather to drive them into taking up the SICME Services as the cheaper alternative.

I guess you can make anything look cheaper by making the other costs look more expensive. But you then go on to say:

> If waste pricing as a mechanism to kick start businesses into recycling fails then regulations may need to be developed.

I mean, if, as you say, the true cost of landfill to be attributed you calculated out as $105 a tonne is indeed the true cost of landfill, why do you have to keep increasing that as you suggested here, perhaps over and above that or regulate, why don't you simply let the market operate in that situation.

MR HORSEY: Sure. We're not suggesting that we would go over and above the true cost of waste to landfill. We are simply saying that we would need to adjust the cost of waste to landfill to reflect that true price. From a municipal authority perspective, the true cost of landfill really isn't charged in terms of sending waste to landfill. We want to adjust that, and we believe that as we do adjust that, that then reflects the true picture of what's happening for us to take that waste in, dispose of it, do the environmental monitoring, rehabilitation, all those things that contribute to the true cost of waste to landfill.

As that occurs and the price of waste to landfill goes up, if resource recovery businesses can come in and process certain materials at 30, 40, 50, 60, 70, $80 a tonne, then they now have that opportunity to realise that and to enter the marketplace, create a business, recover those resources, in full competition in the marketplace with a landfill.

If waste to landfill remains cheap, and ours was down around the $35 a tonne, then the resources recovery industry really doesn't get that kick start it needs, and ultimately the community is still subsidising those costs of waste to landfill, and not properly being recognised. So that's the driver for I guess the comments in our submission.

MR MANNALL: Can I just add one more bit to that which deals with this regulation part. As Chris mentioned earlier on, even though our prices have gone up and you hit sort of triggers where you'd expect certain streams of material to go off and be reprocessed, there's still a lot of material coming in in mixed form. Now, the idea with the regulation may be take mixed sort of construction waste, that if we get to the point where we've got a whole lot of infrastructure that can deal with that, we've got the prices right to try and drive it, and yet that material still ends up coming to landfill mixed, that's the sort of point when we might regulate to say, "None of that material is allowed to go to landfill unless it's gone through a resource recovery recycling facility first."

So that essentially we'll use price, but if price isn't enough, then we might have a look at how we deal with particular sectors or waste streams where we actually are trying to drive the change where price on its own isn't doing it. So I'd say we should charge more, but effectively we're actually supporting the policy of the price with some sort of regulation to ensure that the right outcomes still occur.

MR WEICKHARDT: But when you say "the right outcome" - - -

MR MANNALL: Yes.

MR WEICKHARDT: - - - if the price is the true price of cost of landfill, why are you saying that if people - - -

MR MANNALL: Because that material may end up still coming to landfill mixed and what we're trying to do is to stop it coming in. We actually want to get it reprocessed. So if there is sufficient - - -

MR WEICKHARDT: What's your objective in doing that?

MR MANNALL: The objective is to ultimately stop that material going to landfill unless it has to because there's nothing else that can happen to it.

MR WEICKHARDT: But if 103 or $105 a tonne is the true cost of landfill, why are you obsessed with stopping material going to landfill?

MR MANNALL: Only that if we can have it recovered, why shouldn't we, if it's a better alternative in terms of environmental outcomes to have that material now?

MR WEICKHARDT: But doesn't the $105 a tonne factor in the environmental costs that are going to landfill?

MR MANNALL: Yes, it does, but if we're trying to achieve something like NOWaste where we really don't want materials to go to landfill unless there's nothing else that can happen with them, then it may be that you need to support some of those things to get that outcome to happen.

MR WEICKHARDT: I suppose I'm coming to the nub of why you have this policy of no waste, or minimising what I think you said is aspirational rather than - I mean, at the end of the day, what is driving that? Why have you got this sort of true faith that minimising that, even if the market signals are all set, and the market is not responding, why have you got this belief that to continue to drive that maybe by regulation is necessary?

MR HORSEY: I think to answer your question the NOWaste by 2010 is somewhat an aspirational target. But when we review it and we look at our waste composition data, we believe that we can get to 95 per cent resource recovery with only 5 per cent residual. Now what we're trying to do, not only in this country but internationally, is to establish no waste, not meaning zero waste, but meaning a 5 per cent residual waste. What drives this? I guess initially in the formulation of the ACT's waste strategy and waste policy we undertook extensive community consultation processes: we went to our community, we asked our community what it is that they wanted us to deliver in terms of waste management.

It was clear that the community, through that consultation process, wanted a waste-free society. When we looked at that and we unwrapped that and tried to get to the meaning of it we ended up with a NOWaste by 2010 target; we had a better understanding that really what we wanted and what supports this broader movement of sustainability - and make no mistake about it, we see ourselves as one of the key arms of the ACT community moving towards a sustainable future, is that we needed to recover resources, we didn't want to waste resources in landfill.

We didn't want to have a landfill - keeping in mind landfills in the form that they're in today are not something in this country that have been around for significant periods of time. We have a single landfill in the territory where all of our waste is coming. There are potentials to contaminate groundwater even though we have environmental safeguards, we have monitoring systems, we now have raised environmental standards. I think the question that you're trying to get to is what makes us believe that landfill may not be the best way to treat and process waste materials as opposed to having potentially other processes to recover that resource and do other things with that.

I guess it is, from a policy perspective, it is in support of the drive to sustainability, it is based on professional judgment calls that to achieve a sustainable future, landfilling is not the way to go. I think there are many agencies in this country and internationally that have accepted that landfill in terms of waste management and waste minimisation is not the desired way to go in a long-term sustainable sense and that when we consider - and these are much more complex than we will be able to discuss here today, consider the use of our finite resources in the country, burying those finite resources, creating cyclical resource consumption patterns rather than linear resource patterns and a whole range of other much more complicated arguments that go into delivering a judgment call that waste and landfill is certainly not the sustainable way to manage our waste that our community generates into the future; that a resource recovery approach is - is what drives our approach to continue to want to recover those resources, to continue to want to move away from waste and landfill.

So it's a complicated picture ranging from what our community expects from us, what our community has asked from us, from government policies, right through all those issues that I've touched on.

MR WEICKHARDT: Okay. Well, as you say, we don't have time to tackle a lot of those complicated issues. Thank you for appearing.

MR HORSEY: Thank you.

MR WEICKHARDT: We'll just have a short break now and we'll have the next participants from the ALGA.

MR WEICKHARDT: Our next participants in the hearings are from the Australian Local Government Association and I'd ask you to introduce yourself and your names and your association, please.

MR PRITCHARD: Thank you. John Pritchard, executive director of policy and research at the Australian Local Government Association.

MS SHEPHERD: Angela Shepherd, assistant director of environment policy at the Australian Local Government Association.

MR WEICKHARDT: Okay. Thank you very much indeed. Well, we have just at this moment, I think about two minutes ago, been handed a submission, I'm afraid. Therefore I haven't had a chance to read that so perhaps you can make some comments and we'll take things from there.

MR PRITCHARD: Okay. Thanks very much and apologies that you received that submission late. It was faxed to your office and I believe just been received by you today. Thank you very much for the opportunity; congratulations on the brief. This inquiry is a very important one to local government and you would have received submissions from our state associations, our colleagues around the states and I would expect quite a number of individual submissions from local government.

Waste management issues are very indeed important to local government. We don't intend to go into a great detail; we believe that our state association colleagues have put together excellent submissions, in particular we refer you to the New South Wales and Western Australian submissions which go into a greater level of detail than we will. But we would like to make some general comments about elements of your terms of reference and your inquiry. The first area is of course that in your inquiry you've been looking at types of waste and of course trying to come to grips with the issue of what is hazardous waste.

Hazardous materials, of course, are produced by a range of products that end up in landfill and cause considerable difficulties for waste managers. Landfills- this sort of excretion of hazardous material create all sorts of problems for the management and externalities and costs for the - particularly local government who are managing these facilities. The definition of hazardous material is quite difficult because, of course, hazardous can be taken in a technical sense but also to be seen as just being contaminants in materials that are being handled to produce other materials.

For example, the cost of recycled green waste, increases to the number of markets available for end products compost falls if contaminants are added in that sense. Contaminants in green products represent a real problem for the production of new markets. I might go more particularly straight to the issue of data: the issue of data and the quality of data is a key issue for this inquiry and I think we are particularly pleased that the Productivity Commission are doing this inquiry because we have all been frustrated in our work around waste and waste minimisation with the quality, reliability, inconsistency of data.

The analysis to date, for example, that supports the work of the National Packaging Covenant has been frustrated by data that is not comparable, which is inconsistent and really needs to be available to make a proper assessment or analysis of the issues and policy options that are available to governments and to manufacturers alike. Data is expensive to collect. There's no agreed methodology for the determination of the data that is relevant and there are no systems in place which provide for easy access and easy collection of data and indeed the interruptability of data between interested stakeholders.

Waste recovery data is not reliable. A more accurate breakdown on the types of products going into landfill can assist in developing strategies to reduce waste. Likewise, reliable consumption data is not available, making it difficult to develop recovery strategies. GA is regularly contacted by a wide range of interested parties in waste and recycling data and we simply don't have the data available. Community groups and media and governments are quite frankly amazed at the lack of available data.

Your inquiries looking into arguments for government intervention or whether there is a justification for government to intervene, there are a number of arguments for intervention, most around actual cost of landfills and recycling of waste and the cost of virgin material and the consumer information gap. The actual costs of landfill: currently long-term costs of landfill operations are often understated. The price of land in the long term may not be considered. Social costs are not factored in by councils and long-term management costs, including closed landfill sites, are often underestimated. The cost to councils of complying with environment protection requirements is often large, particularly for rural and regional councils, and there is a high cost for developing alternative technologies, such as engineering solutions, to reduce landfill loads, a solution often progressed by urban councils.

Lack of full costing of virgin materials is also an issue. There is the real cost. Taking into account environmental and social costs of accessing virgin materials is not used when comparing the cost of recycled materials. As a result, it often appears cheaper to buy virgin material inputs. Full costs are required and/or incentives are needed to increase the competitiveness of products made from recycled materials. There have been calls to remove the GST from recycled materials for governments to subsidise these materials to act as incentives.

Consumer information gap: local governments really are at the forefront of community outrage against waste policies, such as the instillation of recycling facilities or landfill sites. Community outrage may be the result of lack of information on waste issues. This is your classic not-in-my-backyard syndrome. Communities also lack the ability to link their own activities with waste generation and the need to manage the waste, such as through landfill operations. Local government needs assistance from industry and other governments to fill the information gap and to get the community to take some ownership of the problems that make decisions to reduce their waste output. The community needs better information to assist their own decision-making. Issues of plastic bags are highlighted and the community's willingness to take on action when provided with a simple low-cost alternative.

Cooperative arrangements: it should not be left to local government alone to deal with waste issues; rather, industry must assist in educating the community and governments must share responsibility for waste management and consumer education. Local government carries a disproportionate degree of this burden. Gains in efficiency, both economically and environmentally, can be made where waste planning is undertaken in an integrated way across both regions and sectors.

The issue of externalities: I don't believe that there is a proper accounting of externalities, nor has there been a great deal of rigour in trying to assess what the externalities are in the waste. Again, this comes down to I think a much better appreciation of the methodologies of what data is required and what input one measures in trying to assess the cost and benefits of waste management.

The fundamental issue I suppose for us is that there is lack of price signals for consumers' involvement in waste management issues. There is currently no satisfactory financial link between domestic waste generation and domestic waste services. Residents can use as much or as little of the disposal capacity as they wish and they will pay exactly the same amount in most cases. There are few signals, other than some additional charges, for large or second bins for consumers to change their behaviours. This is particularly true of course of manufacturers. Manufacturers don't have any price signals that genuinely act as a disincentive for the production of waste and the lack of economic signals for industry creates a problem for local government.

What are the options: well, I'll be pleased to read the Productivity Commission's final recommendations in respect of the waste management inquiry. There are a number of policy options available to government and certainly they range from recycling incentives, trade regulatory frameworks similar to the National Packaging Covenant, pricing and tax measures, extended producer responsibility frameworks, regulation on landfills and waste management sites and incentive to reduce litter. A range of policy options are required to reduce the amount of waste going into landfill. For instance, some industries can lower waste levies through co-regulation whilst others need extended producer responsibility schemes to achieve the same outcomes. Satisfactory frameworks are required to guide programs under each option.

Whatever system is adopted, it needs to encourage better labelling of packaging and other products so that consumers can actually make an informed choice about recycling materials at the point of purchase. Currently the consumers do not have sufficient information when purchasing products and we believe that a useful initiative would be to ensure that the packaging materials were clearly labelled and the consumers understood exactly what was in their packaged products.

There is also an argument that has been put that other levels of government should provide greater incentives to assist and increase the level of recycling through, for example, a GST moratorium on recycled materials, that companies using recycled goods could be encouraged to take up these sorts of products rather than use of virgin materials. I think we'll leave it at that. As I say, we would encourage the commission to give detailed consideration to a number of submissions that our state association colleagues have put together which will go into some considerable detail from the state's perspective, and I think that it's clear that within the Australian context the management of waste and waste systems does occur principally at a state level and our state association colleagues have been instrumentally involved with waste and waste management for many, many years.

MR WEICKHARDT: Okay. Thank you very much indeed. Perhaps I can raise a few questions. One of them is an issue that's been put to us by several people we've had discussions with who have commented that the scale effect of now having to have good facilities, whether they're alternate waste treatment facilities or whether they're material recycling facilities or whether they're properly constructed and regulated and managed landfill, and whether they're sort of well-constructed pick up and collection facilities. All those suggest a much greater scale is required than in the past and that a local council in many cases doesn't have adequate scale to do these effectively. Now, that has been tackled in a number of jurisdictions by ad hoc groupings of councils who've, I guess, joined together.

But a number of people have put to us that part of the problem we've got is that we're still dealing with this issue at too small a level of local government. Do you have any comment on that?

MR PRITCHARD: We acknowledge that this scaling is occurring and that of course introduces a range of both costs and benefits. The shear vast nature of our continent creates some issues in terms of the capacity of solutions such as those you mention in regional and rural Australia. We do believe that those scaling techniques have been used and are well-affected in urban areas. Increasingly it's occurring at regional areas, but small councils in more remote areas don't have the benefit and the costs of actually scaling in the way you're describing is quite difficult.

The corollary of that of course if that the cost for small councils to provide the technical solutions and the management of their small facilities has increased as those demands and standards have increased and so small councils are incurring - and are somewhat frustrated by the increase in standards and the costs that might occur as a result of those increased standards. So new solutions are necessary to be able to assist in a more equitable way of providing waste management services across the country.

MR WEICKHARDT: Yes, somebody made the point to us that indeed the, I guess, compliance with different recycling regimes in urban areas is complicated by the fact that there are inconsistencies in approaches by different local government organisations within the one urban area. So within Sydney or Melbourne one council may have a separate collection for green waste and another may not. One may have co-mingle bins and another may have separated collections. One may collect different sort of plastics and another may not.

They've suggested to us that if you want to educate consumers it's very complicated that if you move house, sort of by five kilometres, and you end up in a different local government that has a different process you probably wouldn't be surprised that compliance levels are lower. Again, do you have any comment on that?

MR PRITCHARD: We're concentrating of course on end-of-pipe sort of solutions here and I think that's quite right that different procedures in different municipalities will create an information gap and that assistance to assist consumer to understand what are the processes and the services that are available in each of the municipalities creates an additional burden. One solution may be to standardise the sort of services that might be provided but circumstances differ within different communities. Again, if we concentrate on looking at landfills and the solution being principally that of the services that local government are providing then there are a range of somewhat modest changes that can be made, standardisation for example.

But the real issue from a local government perspective is to try and move some of the responsibility and the onus back up the line a little further so that we're not simply dealing with end-of-pipe solutions, but we are in fact trying to reduce the amount of materials that are coming into the waste system and that the materials that are coming into the waste service might be used more efficiently or they are available for recycling or don't get there in the first place.

MR WEICKHARDT: You made a comment that manufacturers don't actually get any price signal in terms of variable quantities of waste that they dispose of. I understand that comment in relation to a normal resident - you can use half or all of your bin and there's no additional charge - but I would have thought in most cases manufacturers would have been exposed to a more variable charge rate if they use one skip, two skips or three skips. Could you just clarify your comment?

MR PRITCHARD: Yes, I think that the qualificat

resoundingly responded to by the ratepayers that they want and insist that recycling continue. So the first thing is that the ratepayers and consumers are highly alert and switched on to this issue and it's not necessarily an economic issue.

The second observation is about the pricing of landfills. The net cost of operation of council's waste services is a real burden for local government. The amounts of funding dedicated to the waste management in local councils is a cost which given the other pressures upon councils increasingly to provide other services, human services, infrastructure renewal et cetera, council are, I think, managing their corporations in such a way that they are not knowingly artificially costing their landfills under value in the sense of trying to encourage the use of those landfills. So if I understand your question and if that is occurring then councils will increasingly come under pressure to bring to full account the cost of landfills and charge accordingly if they have the capacity to do so within the rating system. For example, rate capping in New South Wales might create a difficulty for councils to increase the rate charges to fully reflect the costs that might be applied.

MR WEICKHARDT: Yes, because - I mean if you follow your argument and say that ratepayers demand and want recycling, that would suggest that if councils went to ratepayers and said the cost of this will mean, you know, we have to pay much more for it, that would suggest that ratepayers, if they're prepared to put their money where their mouth is, would say that's fine.

MR PRITCHARD: That's the - one of the biggest words in the language, "If", isn't it? The willingness of ratepayers to actually pay is the political $64,000 question. It's difficult for councils to make that decision. But I highlight the cost of recycling and waste management as simply another cost push on local councils. They are increasingly required to provide human services, infrastructure renewal et cetera and so ratepayers are demanding better services right across the board. They are clearly sending back signals that they're not particularly keen to be paying increased rates or increased charges for particular services. This goes to the very heart of what is some major work that is going on in each of our state associations and within our own organisation which is looking at the financial sustainability of local government across the board.

We are only just coming to grips with the full financial capacity of local government nationally to meet all of the costs that the community expects of local government including the maintenance and renewal of critical infrastructure such as roads and maintenance of other assets that council's have accumulated over many years.

MR WEICKHARDT: Mm'hm. Just turning to the issue of the economics of recycling compared to the use of virgin material and your comments about the NIMBY effect. A number of people have put it to us that the economics of collecting and recovering and processing recycled materials is very geographically dependent; construction and demolition waste is a classic case in point, and yet they have said one of the reasons that materials go to landfill is that when you look at trying to apply to government, and I guess this is both local government and state government, for permission to establish a material recovery facility in an area that might be appropriately zoned, there is a whole lot of community angst about that which forces the option of the material recovery facility out into the sticks which then makes it uneconomic. Have you got any comment about how local government are trying to handle that sort of area?

MR PRITCHARD: Well, there are two elements to that question and the observation is absolutely correct. The first observation is that everybody wants to support recycling and likes to see that happen but they don't want it in their neighbourhood. The second issue is we fundamentally and fully support the fact that communities should be involved in the decision making as to the planning decision as to whether a facility should or should not occur within their own municipality.

So it is a conundrum for us, local government, and we recognise that some councils see that there are some economic benefits to establish such facilities in their own municipalities and if they are - if they're in conjunction with an industry able to convince their local community that this should occur then we fully support it. Where a community rejects the establishment of those facilities and a council was still keen to establish one, the political process usually takes over and the council may not in fact - those that support the facility might not be there after the next election, so - - -

MR WEICKHARDT: But, I mean, here we have a conundrum. You're saying that local government, partly in responding to community demands and partly I guess because you think it's the right thing, want to encourage more recycling, and yet do you think local government have taken as an active a role as they could have in educating the community that part of the consequent, I guess, collateral that goes with recycling is that the community has to have recycling facilities appropriately located and that they stand up and represent that there are good reasons for this?

We've got the Cement Industry Association appearing later in this inquiry, in this hearing today, talking about a case study where despite demonstrating that they could meet all the environmental requirements to basically use tyres in a cement kiln, they claim all the environmental requirements, the local community jumped up and down and said, "We don't want this," and as a result they're not able to do it.

I guess my question is do you think in those circumstances the local government associations or local governments are taking the leadership role to say, "Look, this is the sort of thing that ought to be done"?

MR PRITCHARD: Well, councils have very well-established credentials in recycling and promoting and educating consumers about the processes and the benefits of recycling. I think my colleagues in the state associations and probably in local government will expect me to say that councils are probably doing enough. The issue seems to be that just as we have the sort of "not in my backyard" syndrome, it seems to be somebody else's problem to solve, and that clearly local government is not in a position to be able to solve this problem by itself and that one might ask the industry and other levels of government what they are doing to support a coordinated and integrated approach to promote the introduction of those sorts of recycling and community education programs to support it.

MR WEICKHARDT: I'm sure everyone has to do their own part. Sometimes, however, it's my impression that local government are active in almost siding against some of these schemes because they think politically that it's all too hard.

MR PRITCHARD: That may be the case.

MR WEICKHARDT: Okay. One other question - and it probably should be my last, because we should move on - but in the construction and demolition area it's been put to us by some participants that a factor inhibiting the use of recycle construction and demolition waste - and indeed I think this was also put to us in the glass recovery and recycling area - was that this material can be adequately used in, for example, materials like roadways, but that a lot of specifications that are put out by local government and state governments actually call for virgin materials to be used; that specifications are not performance based but are based around the attributes of the material.

Again is that an area that the local government association has looked at as to whether or not you could encourage more recycling by ensuring specifications are performance based?

MR PRITCHARD: We're not aware of the circumstances you mentioned. We certainly are familiar and support a performance-based approach to a lot of these sorts of issues. So it's an issue that might be a fertile area to be explored more fully with local government. Unless there are - well, look, we'll take that on notice and certainly would like to have a discussion with AusRoads or others who do establish codes and standards that local government often apply.

MR WEICKHARDT: Okay. Thank you very much indeed. Thank you for appearing before the inquiry and I look forward to reading your submission afterwards. Thank you. We'll take a short break now and we'll start again after morning tea. We're due to start with Zero Waste Australia at 11.20. Thank you.

MR WEICKHARDT: Okay, well, I'd now like to restart the public hearings into Waste Generation and Resource Efficiency Inquiry, and our first participant this morning after morning tea is Gerry Gillespie. I'll ask you to introduce yourself and your organisation and the capacity in which you represent them, please.

MR GILLESPIE: Yes, sir. My name is Gerry Gillespie, or Gerard Bradbury Gillespie. I'm the chair of Zero Waste Australia. I represent an organisation that's not for profit that's registered in the ACT. It's a national body. I'm also - from 1 March I take over the role as the coordinator of the international Zero Waste International Alliance, which is an 18-member group. 18 countries around the world are now involved in it and considerable communities beyond that.

The latest of the communities to join the Zero Waste network worldwide are Buenos Aires and Boulder, Colorado. It's interesting when you look at how that organisation has started, indeed how it builds. It has become very very rapid spread. In terms of the recognition of people as animals living on a planet with relatively little resources, we need to actually start looking more dramatically at the way that we consume those resources, indeed where they go.

I often say waste is basically a concept. The only place it exists in the world is actually between human ears. It's like the word "holiday". There's no difference between an empty and a full Coca-Cola bottle. The processes in handling materials at the outside of a system are the things that we should be looking at. The fact that we invest such enormous amounts of money in handling these resources is the thing that Zero Waste Australia particularly is interested in because we see it not so much as a problem but as an enormous opportunity. It was interesting before there to hear about - - -

MR WEICKHARDT: Sorry, Gerry, can I just pause for a moment, please?

MR GILLESPIE: Sorry.

MR WEICKHARDT: Can I also just clarify your relationship with the Healthy Soils Australia organisation who are also appearing here. Are you also associated with them?

MR GILLESPIE: Yes, I am. I'm on the board of Healthy Soils Australia. Healthy Soils Australia is basically an initiative that was put together by Zero Waste Australia. I think the gentlemen who will be speaking to you in regard to that following me, are much more focussed on the scientific elements. My interest is more specifically in the enormous amount of money that we invest in the waste industry and the potential to turn that into far more constructive uses.

MR WEICKHARDT: Okay. Thank you.

MR GILLESPIE: It may be also of interest too that in my day job I am the regional manager of the Department of Environment and Conservation Sustainability Programs Division's south-east office, which these things become larger and larger mouthfuls the further we go, I think. My interest in this area - I cover the 56,000 square kilometres that are the south-east corner of New South Wales, which is currently being turned into the last in New South Wales of the voluntary waste groups. That organisation will receive funding from the New South Wales state government via our department to actually implement recycling programs.

It's interesting also too, I think, Mr Commissioner, from the perspective that we have finally got to a point where people are so focussed on resource recovery that these initiatives are almost developing themselves. Certainly they require, or people perceive that they require, a fair amount of government input. For example, the last meeting that we had where that group was considering their name, of all the members present, of the 20-odd members present, only two thought they should have the word "waste" in the name of the organisation. Everybody was into resource recovery and it had to be that.

When you consider that when we started that organisation in 1990, we had two councils that actually had any interest in recycling. So the impetus is certainly there socially and as your previous person from the Local Government and Shires Association was making the point about recycling and how popular it is, we find that around the world 95 per cent of people in all of our organisations around the world want to recycle and yet as government we tend to deliver probably somewhere between 20 and 25 per cent as civil servants around the world. That indicates to me that the problem is not at all the people; the problem is the system. The problem is what we offer people as potential recycling programs.

MR WEICKHARDT: Okay. So just finally clarifying that - but you're here speaking on behalf of Zero Waste and not on behalf of the New South Wales government.

MR GILLESPIE: No, strictly as Zero Waste Australia. I don't have the authority to speak here as a government member although I will allude one program that we conducted in the neighbouring city of Queanbeyan.

MR WEICKHARDT: Thank you. Please assume that I have read and, you know, the members of our organisation have read your submission, but you might like to make some introductory comments. We need to finish this session by 12.10 and clearly I have some questions, so if you can be mindful of that in terms of your presentation.

MR GILLESPIE: Yes.

MR WEICKHARDT: Thank you.

MR GILLESPIE: I'll just stick to what I consider to be the pertinent points in terms of the overall waste issue. If you look at what we do nationally I think it's pretty well agreed now that we spend something like $3 billion a year putting 28 million tonnes of waste into landfill. The thing that's interesting about that from our perspective is that anywhere between 50 and 60 per cent of that material is organic. If indeed we can find a way to deliver that material more directly to agriculture it would seem to make an awful lot of sense.

My department in 2003/2004 conducted a project in the City of Queanbeyan called City to Soil which determined that we could actually prove that we could collect, process and deliver to agriculture within a 200 kilometre radius of Queanbeyan a high quality organic product for less than we could put it into landfill. That cost at that time was around $50 a tonne. The cost of disposing of waste into the ACT now is around $77 a tonne. We can actually do it but what we need to use is a different system, a different method of looking at what waste is or where waste comes from.

The issue in terms of that is, is waste a problem or an opportunity. Indeed having a conversation with some of my colleagues in Sydney earlier today I was highlighting the fact that if we see ourselves as constantly trying to solve a problem in terms of the waste issue, we'll sit there constantly with all the - if you'll forgive the sentence - all the grey-haired males who sit in local government who have their own fiefdoms to look after, not that that's a nasty thing - that's just human behaviour. You have all the difficulties of trying to transcend state and federal government and trying to make things move.

However if we had a system that actually enabled us to work directly with farmers to get organic material into agriculture then we would start to address some of the horrific degradation problems we're facing in agriculture soils in Australia today. 75 per cent of our agricultural land has got less then 1 per cent of organic material. But what we tried to do in this project, City to Soil, was look at how do you make a connection between the individual household and the farming community? What we did was we identified the bin in the household, that is to say we identified the address with a bar code on the back of the bin, and we encouraged people to provide clean source-separated material into that bin so that we could then process it and put it into agriculture.

At the same time we used a vineyard on the Captains Flat Road to prove that we could actually increase the yield from the output of this. We had a 230 per cent increase in yield, about a $1300 per hectare, I think it was, increase in profit for that farmer. What we were demonstrating or trying to demonstrate is that once you get organic material to a farm gate you get reduced fertiliser, reduced herbicide use, reduced pesticide use, increase yield, improved soil structure and more importantly from the perspective of the National Water Commission, a massive increase in water saving and water efficiency.

Those benefits to the farmer once they get onto the land are far and above any benefit that accrues to the community by managing a recycling program in a different way. Indeed there's a piece of Norwegian research that indicates that the benefits to agriculture can be anywhere between $40 a tonne and $800 a tonne depending on the product that you're trying to produce. So from a zero waste perspective - from Zero Waste Australia's perspective - if you look at the waste stream in total, between 50 to 60 per cent is organic material, 1 per cent on average is toxic material which I'd question why it should be in the waste stream in the first place, and the rest is inert.

In engineering terms we have more than enough ability to handle all that inert material. I would suggest that if we focused on and looked at the green waste material and the percentage of that material that we can get back into agriculture we would be very close to addressing not only the commercial and industrial waste solution but also the larger part of the domestic waste problem as such. At the same time, of course, once we actually started to prove that you could change soils once you got all this product into agriculture, and we were looking at a change in soil biology rather than just the pure organic material back in agriculture, we can actually achieve that change in soil biology by a whole range of management practices as well as the use of commercial waste from the agricultural stream itself.

So Zero Waste Australia then - our whole focus on this is, "I don't think it requires massive government intervention." It requires a small amount of government pointing, if you like, in the right direction to say that these are opportunities. Indeed, yesterday and tonight I'm having a meeting with a group of farmers to determine how we can get that quality product into their agricultural area and the Mallun Creek area.

What we intend to do then is get the farmer actually working with the processor. So instead of going from the left to the right with the problem, saying, "We have this problem. How do we find a solution to it," we go out and find the opportunity with the farmer and then work our way back. You use the process to make a product the farmer can use and then that's the things that predicates how you collect the product in the first place. So it's a question of turning it on its head as much as anything else.

I would suggest then that what we could end up with if we had that slight focus and that slight push from government is an organisational structure that's not that different from the land care movement except it's run as a commercial entity and it's run on much the same basis as any other franchise business around Australia. It operates in a small region as well as in a large city region. It can operate under any capability at al simply because it has its market predetermined by working in conjunction with the farmer. That would be about it, it I would think, sir.

MR WEICKHARDT: All right. Thank you for those comments. Your submission makes a number of comments about the desirability of putting organic material back into soil, which I don't think many people would contest. However, I should put it - the record note that in my previous career I used to be the chairman of the largest fertiliser manufacturer in Australia and I think most fertiliser manufacturers would be somewhat surprised by your comment that minerals and trace elements are not put back into our soil through the application of fertiliser. In fact a lot of people in white coats are doing a lot of research and spent a lot of time thinking about putting minerals and trace elements back through application of fertilisers. So I think from a factual point of view your submission makes some comments there that are really not correct.

MR GILLESPIE: It's interesting when you look at the actual structure of a plant. It takes between 60 to 90 minerals, nutrients and trace elements to construct that plant and what I'm saying or what I'm implying or perhaps I've used the incorrect words, but what I'm saying there is that fertilisers tend to be in Australia relatively limited to three major component parts. They may in fact go up to 40 component parts. But even if they miss out 10 of those component parts you're still going to end up with a situation where you have soil degradation. Indeed I see in the idea of getting organic material back into agriculture, I see the greatest partner is the fertiliser industry because the fertiliser industry has the infrastructure.

The fertiliser industry, if we continue to get the levels of soil degradation that we have at the moment are going to be the big losers in this because farmers are putting more and more on and getting less and less off. How do we get those fertiliser firms, the very people who actually have those networks and those tracking systems to supply the types of products that will increase the biology in soil and indeed in the longer run give them the ability to sell more of their product.

MR WEICKHARDT: Can you talk a little more about this trial and the bar-coded bins and the collections' system. What was it that actually led to achieving a much better level of uncontaminated organic material in these bins?

MR GILLESPIE: We spent a lot of time trying to actually let the householders know what we were on about, in other words that this wasn't necessarily about the recycling bottles and cans, this is about your children's future, this is sustainable agriculture. That was the general theme of the entire idea. We - and I'm sorry, we probably need to go through this, but we sent out a newsletter and as anybody knows who is involved in the recycling industry, if you send a newsletter, 50 per cent of them go straight into the recycling bin if not more. So the next time we went around we were all dressed up in these rather elaborate Mexican hats with a two-tonne truck with hay bales on it so we looked like the Beverley Hillbillies and we drove around the streets of this area of Queanbeyan physically handing people a small wheel bin with the instructions and a small bag of compost.

I directly encouraged the staff who were doing it to stop and tell people what we were on about. We then conducted a survey to find out what people's levels of understanding were. The general idea of it, and I don't agree necessarily that it's the best system, but when you consider that this system was devised by two people in a small country office in New South Wales, if we applied some real intellect to the ways that we can change this and make it more effective, I'm sure we'd come up with something different. But the idea was to identify, as I said, a single coded - a bar code on a bin.

The householder was encouraged to put their material out with no contamination, so no plastic, no glass and no metal in that bin. We swapped back to a rear-loader vehicle, so we went for the idea of giving more people jobs rather than less people jobs. A side-loader vehicle - also you can't see what you're actually putting in the truck. So when - - -

MS WALSH: Was it manually?

MR GILLESPIE: Well, it's a rear-loader vehicle so the bin has to be manually wheeled over and put on a catch at the back of the vehicle and then tipped into the truck. So the two staff came up and opened the bin, inspected the bin to see if they could see any contamination and then if they saw nothing they emptied the bin in the back of the truck. If they still looked in the back of the truck and there was still no contamination then one of them had a clip-on scanner on their belt and simply scanned that number into a hand-held scanner. All of those numbers came back down to our office and using just a simple program, Microsoft Excel, we chose two of those numbers and those two households won a $50 hamper of fruit and vegetables. So where does my food come from - that's the sort of link we were trying to make.

Contamination levels, as I said in the paper I think, dropped 40 per cent very rapidly. That's a very important issue because the way Queanbeyan does that separation of materials at the moment is they collect the material with a side-loader vehicle then they take it to a point where it's emptied on the ground and they pick the contamination out of it. But the most important part of this that I saw is, as Mal Peters, the former president of the New South Wales Farmers Association said, "The farming community spends an enormous amount of time trying to get a relationship with the urban community." People think - most of the people who work in my head office in Sydney, I quite often say to them, think that food basically comes from the shelves in Woolworths; their biggest environmental experience is the veggie counter in Woolworths on a Saturday morning.

So this is really trying to address your relationship with the soil: the soil is your mother, you can't do without the soil. 70 per cent of our industrial inputs come from the soil; we can't ignore that relationship any longer, it's time that we tied that back together. More importantly, I think, what this program tried to do was saying if you want to go out and save Australia's trees or if you want to go out and save Australia's rivers as the federal government has just done, you have to spend billions and billions of dollars. What I'm saying is the money is already there in the waste energy, we just need to focus on the outcome instead of seeing ourselves jammed in this problem up front.

I'm sorry, it's a bit elaborate but basically the idea was participation, engagement with the farming community, how do you maintain that relationship? Indeed, I would suggest long-term that if we did it on a larger scale we move away from the price idea and concentrate more either on a partial community credit or as we were saying just recently to the greenhouse office, the idea of an on-farm credit. So when a farmer uses a tonne of material we by research agree on what effect generally that might have. It might be worth $10 a tonne for the farmer to get that credit and then rather than the somewhat peculiar idea of offsets where you've got to ruin half of something to save the other half, the idea of a credit system would work on the basis that every time the farmer takes a tonne of material they're actually making a credible investment in their farm. I'm just trying to expand on the idea of the waste problem as it were.

MR WEICKHARDT: Okay, thank you. Can I just clarify in this trial, was it only green waste you were collecting or was it all organic waste?

MR GILLESPIE: No, it was only green waste. We've since come up with a modification. Indeed, as I said, we were talking to the greenhouse office about the prospect of looking at something broader and I think we'd actually - if we could do - if that was the case we'd change over to a biodegradable food bag used in the kitchen with a bar-coded clip that went on that. One of the difficulties in the waste industry is if you give - and I don't mean this is an unfriendly way towards the various people who work in the waste industry, but if you give an individual the ability to scan someone's number in manually, his mother-in-laws might not go in but all his friends might go in 10 times.

So you need to have a system that seemed to be unmanipulable from the people in the middle. The idea of that tag would be the organics food waste bag would go into the green bin, again encouraging little contamination but at some point in the future, because that bag would carry a clip with a bar code on it, you could pull that bag out and split it open. If that one has no contamination at all then that person might put in the value of a tonne of compost or 10 acres of land on the Murray

Darling Basin or a solar hot water system or a brand new Cirus car. Using a model of that system, when I was working as a manager of Zero Waste, as their founding manager of the Zero Waste Trust in New Zealand, there was enough money if you used a tag system of that sort in the city of Auckland - there was enough money in the waste industry to give away a brand new BMW top of the range model car every three months.

It's not that we don't have the money in the system, it's how we use the money and this - to my mind this is not about putting people out of work. This not about putting fertiliser companies out of work, it's about saying every household in the city of Queanbeyan makes a $250 a year investment in the away process. How do we invest that in more jobs, how do we invest it in transport? The waste industry instead of taking their waste to a hole in the ground at Woodlawn mine take their waste out to a farm somewhere else; it's just a change of direction. As much as anything it's a basic philosophy of looking at the idea of how much more of a thrashing this resource base that we use can take.

MR WEICKHARDT: Can you talk to us about the trial that you refer to and the benefits that were achieved in the additional yield, what was that compared with, was it trialed against some other form of application of nutrients - - -

MR GILLESPIE: Yes, we had - the actual research was Dr Sara Beavis, a research fellow at ANU. She had six variations on the actual trial area. We had a control, 10 centimetres of straight compost, 10 centimetres of compost with 40 grams which is about a small handful of vermacast, worm castings per vine, five centimetres of compost with 40 grams of vermacast, 10 centimetres of bergas sugar cane waste with 40 grams of vermacast and a rock dust with 40 grams of vermacast and the thing that surprised me - I ran the ACT government worm farm for many years here as a research project, the best thing, which in some ways disappointed me, was 10 centimetres of straight compost. That gave us a 230 per cent increase in yield.

This is very - it's an interesting point because the vines were very young, they were only five year old. Captains Flat has some of the worst soils in this region, I think and the particular area we were growing which is good for grapes but the reaction would have had to have been fairly big. It was interesting that last year that the yield on those grapes dropped back to 82 per cent with no additional additions of compost. This year I think it's going to be down around where other researchers found - somewhere around about a consistent 40 per cent. We held the bricks levels and the balm levels in the grapes perfectly right across the rest of the grapes, so there was no effect - although we increased the yield quite dramatically we didn't affect the product.

I wouldn't think in the long term that we don't need - necessarily need, as any fertiliser spreader would know you don't want to put great heavy trucks dragging semi-trailer loads of compost all up and down farms because you've got the compaction problem but if you put it into a pelletised form, into a liquid form there are an enormous array of biologically available products these days we could turn that product into. So maybe - it was merlot grapes and the increase was quite dramatic in terms of the actual yield, in value to the farmer.

MR WEICKHARDT: Okay. Thank you for that. We had this morning first up ACT NOWaste talked to us and they mentioned the fact that some of the product that is being collected and some of the organic material that is being collected in Canberra is actually going into compost but they expressed concern that the outlets for that were under threat of competition from compost coming from New South Wales which they alleged, I think, was being underpriced - dumped was their word. I think that's normal competitive process but anyway they alleged this competition was potentially eroding an outlet for the compost. I mean if the benefits of compost are so beneficial why is there any concern about a competitive market developing for this product?

MR GILLESPIE: There are a number of peculiarities in the market. In most places in New South Wales, particularly in the Sydney catchment area, Newscastle and Wollongong, people who take green waste are actually paid for it. So in some of those instances those people might be receiving $20 a tonne when they actually take the product. The way the ACT government has set up the collection systems here - - -

MR WEICKHARDT: Sorry, who pays whom?

MR GILLESPIE: The people who drop the material off pay the people who are going to process it into a product.

MR WEICKHARDT: Right.

MR GILLESPIE: They pay them upfront in the Sydney, Newcastle and Wollongong area. That doesn't apply down here simply because we don’t have the advantage or disadvantage of the levy system outside the greater Wollongong, Sydney, Newcastle-Wollongong area, New South Wales. The focus down here, however, has always been on the idea that householders can drop off that green material for nothing. So Canberra Sand and Gravel and Corkhills have always taken that material for nothing, and complained long and hard about the fact that they received no financial support.

They do receive a very - I think it's about $2 a tonne support. I think the fact that Corkhills managed to compete - Corkhills and Canberra Sand and Gravel managed to compete at all is probably more down to business skill on their part than anything else. I think the notion of trying to sort of interfere in that structure - if you say that there should be benefits out there that people should be aware of about the benefits of using compost - I don't know how that happens.

I mean, how did we get into the bind with the fertiliser industries where we just saw ourselves as utilising that one particular range of products and not sticking with organic material? If you went back to the period pre Justus von Liebig in the 1840s, everybody considered their manure to be a wondrous thing, and indeed Justus von Liebig who pushed the idea of NPKs as a singular focus for commercial fertilisers. He said on his death bed basically he'd been terribly arrogant he knew all that much about agriculture, about biology.

So I think the knowledge shift needs to come with us appropriating as a part of the marketplace, and as I said before, I think that comes to us actually going and talking to farmers about the opportunities and I'll be very soon talking to the New South Wales fertilisers group about the idea of looking at that opportunity of putting together a farmer processor organisation that goes to actually call tenders. But when we get to that point, we probably do need the help of government to allow those people into the tender process, otherwise it will still become a waste and still go to holes in the ground.

MR WEICKHARDT: And the trial in Queanbeyan, is that still going on?

MR GILLESPIE: No, it's not. I would like to see it much more refined. As I say, there are difficulties with the front end about the bar-coding system. I think it needs to have a lot more intellect put into it in terms of its ability to be trusted as a system. I don't think that's difficult. I think we can use any number of bar code systems. It's a question of just devising how we might best do that. We have several options at the moment. As I said, we have one greenhouse proposal that's looking at doing that maybe in the Queanbeyan, Wagga, Griffith area, all in the Murrumbidgee catchment.

I'm very interested in talking to the National Water Commission about getting them to match things dollar for dollar in terms of funding if that happened. I don't particularly like the idea in many ways of government funding. When we give out money for things as government we sometimes put a lot of restrictions on that. I'd like to see a one-off structure perhaps, if the government did become interested in that - just a one-off thing to actually establish the business, but much the same as the investment in land care, and look at the dividends that pays. It pays enormous dividends.

But I'd really love to refine City to Soil a lot more before we actually put it on to the broader community. Queanbeyan has still got its composting system going. It still is quite valid. It comes under constant threat because people - I think as the Local Government Shire's Association gentleman said before, people see recycling as a cost because everything in local government costs and nobody ever looks at the value chain. The value chains can be enormous in terms of recycling.

MR WEICKHARDT: I mean, if there's enough money to give away BMWs in this process, why hasn't it continued?

MR GILLESPIE: Because most of it at the moment goes to companies who have their basic home in France. There's a 20 per cent profit. This stuff is put into - if you look at the situation currently with North Sydney's waste, it comes down here by train and goes into a hole in the ground at Tarago for $150 a tonne gate fee to make bio-gas.   I would be asking why aren't we paying collectors $100 a tonne to go into the Sydney market to buy the stuff off the householders in a clean, source-separated form.

determined focus on the back end, working with the farming community as I said, or the agricultural distributors, the agronomists, if you focus on what you're doing at the back end the whole system will change direction. It will just lift and go because it's of more economic benefit to everyone, but it's not going to do that while people my age who have been in their jobs since the dawn of time keep holding onto the idea that they want everything to stay exactly as it was.

MR WEICKHARDT: Okay. Well, thank you very much indeed. My colleagues have pointed out that I'm working to a different - probably an out-of-date timeline here, so I'm afraid I've intruded on your colleague's time a little bit from Healthy Soils Australia, but it sounds as they're on the same issues as you are, so thank you for appearing.

MR GILLESPIE: Thank you.

MR WEICKHARDT: We have now have Healthy Soils Australia, and I'll ask each of you to introduce yourself for the transcript and if you'd give your name and your positions within your organisation. Thank you.

DR SCHOONEVELDT: I'm John Schooneveldt. I'm an ecologist and I'm a director of a group called Sustainability Science which is one of the companies that have come together to form Healthy Soils Australia. I'm also a director of Healthy Soils Australia.

DR TUNSTALL: I'm Brian Tunstall, also an ecologist, 26 years in the CSIRO and sort of about eight or 10 in industry addressing the environment. I'm a director of Healthy Soils Australia and I'm also a director of ERIC which is sort of one of - that's Environmental Research and Information Consortium, which is again a private company that looks at providing natural resource information to support land use and management.

MR WEICKHARDT: Okay, thank you. Yes.

MR JEHNE: I'm Walter Jehne. I'm a soil microbiologist, again with research experience in CSIRO and then extensive work in government and industry but also director of Healthy Soils Australia but we're here as independent scientists and professionals working for Healthy Soils Australia as a community organisation specifically affiliated with those parts.

MR WEICKHARDT: Thank you. You have made a submission and we thank you for that. You might like to talk to some parts of that but assume we have read the submission and I am now operating to a time line that is corrected and I understand we have till 12.30. Thank you.

MR JEHNE: We assume you have read it.

MR WEICKHARDT: Yes.

MR JEHNE: So maybe what I can do is just give you a brief overview of who we are and why we're here, or why we think we're here, and then give you a chance to ask some questions as to what we're trying to address.

MR WEICKHARDT: Thank you.

MR JEHNE: We are an independent group of scientists. Healthy Soils Australia is a new group; scientists, business people and farmers coming together to address the sorts of issues that Gerry was talking about a little while ago about this whole issue of soils and getting organic materials back into soils and what do we do about these huge waste streams that are all around the world really. As we operate with a linear economy, which is extractive, it takes things out of systems; we use them for a while and then we turn them into waste, and we need to design an economy that harmonises with ecological systems and we stop this linear extraction process and try and develop a system that is integrated with the natural ecological system so it's that sort of - turn the economic model around, not the economy itself, but I mean, the way the extractive underlining principle, if we turn that around into a recycling circular reuse model.

We think that there are two ways of doing that. All the organic stuff which represents about 70, 80 per cent of our waste streams can all be recycled and reused and that's quite a different process than what we do with the minerals-based stuff, the technology-based stuff which needs to be somehow contained within the economic system. On the one hand all of the organic stuff needs to be recycled and all the stuff, the mineral stuff, it can be recycled within the economy, as it were, but it needs to be kept within that economic process so that it doesn't leak into the environment, so they're the two soft of overall driving sort of processes we see that are needed.

We think that our soils are so important because they represent really 70 per cent of our resource base and this country is soils based, either directly or indirectly; the whole economy is 70 per cent, so maybe my colleagues would like to add things to it but that's an overview of it.

DR TUNSTALL: Perhaps the overarching sort of reasons why we formed Healthy Soils Australia, in the last 200 years we have obviously been effectively just quarrying our soils. They're very old, very highly weathered and very fragile sort of soils and literally as John has said we have been having a linear extraction of a nutrient and degradation of soil structure and, yes, 70 per cent of our whole material base; there would be food security, biomaterials, water et cetera, is totally dependent on the sustainability and health of that soil capital. We're really very concerned that we're actually sort of quarrying that without due regard to the capital value of that into the future and that we're doing that through subsidised ignorance whereby we're sort of saying, "Look, here are our inputs," whether it's sort of subsidised fertiliser in the past or fuel or sort of land management practices where we are literally quarrying that soil capital, that natural capital.

We can reverse that very substantially. We believe from the scientific background we have that the technologies are substantially there but there are fundamental market impediments, economic impediments, and there's some of the discussion you had with Gerry we might be able to add to, whereby there are barriers to realise the real value because at the moment all these things are still put into the externality sort of costing issue, but also there are impediments to these eco innovations being demonstrated, evaluated and then allowed to operate competitively.

MR WEICKHARDT: Yes. I hope you're going to help me understand that.

MR JEHNE: We're keen to but the whole point is that it's that 200 years of degradation of soil capital and if we don't start very, very urgently addressing that we are going to be in very serious trouble. Gerry mentioned, for example, ANOR, that's the Asian Network of Organic Recyclists and yet we are exporting nutrient to Japan, to China, in food. We are fundamentally degrading. At the same time of course Japan is nutrifying under the sort of toxic loads of excessive nutrients in their sewerage effluent incineration and unless we find ways of closing that cycle we would argue within 20 years we're going to have fundamental issues, not just in terms of Australia's export and viability, but quite frankly our whole food security balances globally.

MR WEICKHARDT: Thank you.

DR SCHOONEVELDT: We could really put that into perspective. We're feeding and clothing in terms of fibre with somewhere around 40, 50 million people. Within 20 years at the current rate of degradation we would be lucky if we can support our own population in food and fibre, such is the rate of degradation of our soils at the present time.

MR JEHNE: We are losing, for example, just as an illustration, New South Wales Department of Soil and Conservation 50 tons of topsoil from our grain-producing area for every ton of wheat we produce and export, 50 tons, so that's our capital degradation per unit of output. You might say, "Whoopee, we're going to get $200 as we sell this ton of wheat, plus transport fees of course, but the point is that the capital degradation for, you know, sort of national future is much, much higher. The point that we want to make is, yes, we can address that through some of these recycling processes but there are impediments to making that happen.

MR WEICKHARDT: Thank you.

DR TUNSTALL: I'll make a comment there; that basically I come from native vegetation which you don't put fertiliser on - it does quite nicely, thank you - and it obtains nutrients and it recycles those nutrients and puts together a very efficient system that, you know, it holds together. At the moment they are looking at agriculture, of course, that's not happening. Interestingly enough some farmers are doing very well. They have hit the wall. They have gone in and they have built up their organic matter and they're using, you know, some very innovative systems to achieve record production but of course they're the exception.

One of the questions you asked Gerry is sort of, "Why isn't it happening?" I have written 95,000 words to date on papers in a book called The Politics of Science and you may gather it's not all that simple why it's not happening but it comes back to the research base and where the money is coming through and there is an incredible inertia there that's built into the system and the interesting thing is how is that going to be changed. When it comes to what I'm talking about the moment, the environment, one of the reasons I set up the business was because I realised CISRO was not in a position to deliver against the environment. When I have a look at the way the environment is being addressed now they're divorcing product land use from the environment. You know, a fundamental absurdity but it's done.

MR WEICKHARDT: Can I just clarify that point? Is Healthy Soils a for profit business?

DR SCHOONEVELDT: No, it's not. It's a company limited by guarantee but its members are for profit businesses who are interested in soil restoration who are farming, independent scientists who are doing research, have come together because the mainstream scientific bodies, the universities and CSIRO and so on, are not meeting the needs of Australia in terms of research or in terms of support for industry. Industry is often doing research itself and doing some good research but it is in competition with CSIRO and others who are running to a government agenda and not doing an agenda that fits what the farmers or the community see as the real needs.

It's very interesting to see how you talk to farmers and they all recognise the importance of their soils. You know, it's a fundamental thing but if they have grown up with the idea that the soil is the mother of us all in a sense and they're disturbed at seeing the artificial chemicals and things like this poisoning the soil but they are locked into a system where they can't do much else.

MR WEICKHARDT: Why?

MR JEHNE: I suppose also you have got the situation where we structured the economy where there are farmers or industry or CSIRO, the whole performance measure is on yield and economic production in the short term and this whole bigger issue of soil capital has been always left as externalities to the future, to society, to the environment. It has always been cheaper to buy another hectare of land for $500 or $1000 than actually put the recycled, reinvestment and sustainable management of that land. So we've basically made public land available at such ridiculously cheap cost because we haven't valued it strategically and so it's easier to sort of use and discard than to manage.

MR WEICKHARDT: I have to say I know a number of farmers who are extraordinarily highly qualified who have had farms in their families for generations and who have real long-term concern.

MR JEHNE: Of course, yes.

MR WEICKHARDT: I don't see them doing some of the things that you're saying, you know, in terms of running down their farm.

DR TUNSTALL: Let's get this straight. We're not suggesting that the farmers are going out there intentionally doing that, and I've got some classic examples where farmers have come in and produced a solution for dry-land salinity but the agencies ignored it, "No, you can't do it," and the advice of the agency was for them to go and buy other land, forget about the land that was degraded. Now, that's official advice. The farmers don't like it.

MR WEICKHARDT: I know salinity is clearly a major issue and I would have thought is probably the major issue in terms of removing agricultural land from productive application in Australia at the moment but I'm still a bit perplexed. If your members see the picture you see and our forward profit people and there is such a bonanza being made here, why aren't they racing out and buying some of this ridiculously cheap land and applying the techniques that you're talking about and making a fortune?

DR TUNSTALL: Look, we've only just started and there are already people looking at that. In terms of the ERIC capability that we've got, there's a few people that have realised that, yes, there is great potential - value in being able to evaluate the true potential of the land, the soil mapping techniques there that are really new, and that is worth money. But you've still got to have that, you know, revenue stream that will actually pay for that initial work. To date we've been, you know, completely suppressed in that by the public organisations.

MR WEICKHARDT: Sorry, is suppressed how and by whom?

DR TUNSTALL: Just about any scheme that you like but the last one was an inquiry into - not an inquiry, a study that was done on salinity mapping in the Australian context, and basically one of the comments in there which sort of really narks me, as the claims by some vendors have got no basis in science. We've been fighting with that for years and, sort of, you know, Trade Practices Act comes in and things like that. But basically it's just the system using itself to suppress competition and it can do it.

MR WEICKHARDT: I'm, sir, perplexed, I have to say. We have the Trade Practices Act that's supposed to prevent that and I think Mr Samuel and his colleagues are fairly vigilant in those areas. I fail to understand.

DR TUNSTALL: I had very good discussions with them. You need collusion whistleblower in one entity; in another situation it's very difficult with these authorities, because they have a statutory responsibility, you've got to try to separate out the difference between a commercial activity on their part and their statutory responsibilities and so much of these public organisations can hide very well behind their statutory provisions.

MR WEICKHARDT: Which sort of organisations are you talking about?

DR TUNSTALL: Probably - well, to be quite honest it's all of them. There are no exceptions, and that includes universities, universities in a different way. But the ones that actually have control use that control to good effect. It's in the book.

MR JEHNE: Perhaps so we don't misrepresent, there's no question that many farmers are extremely concerned. That's why exactly the membership base in fact that, you know, joining Healthy Soils Australia, but I don't think you can make the statement in opposite to say therefore there aren't economic drivers saying, "Look, short-term return on investment, looking at the marginal, you know, current cost rather than the capital degradation because of financial pressure.

But answering that last question you asked Brian, for example, as an illustration we now have regulations in New South Wales that you can't add recycled composts or organic matter to agricultural lands, blanket, unless it has been explicitly exempted. Now, they've done it for good reasons because they're very concerned with shonky generic composted materials from urban areas containing heavy metal contaminants being put on to land and then further irrevocably degrading the capital base of that land. But you have the blanket regulations saying no and so again you crowd out and exclude all the innovative performance-based verified proper systems for returning that organic matter into the soil.

MR WEICKHARDT: Just if I can understand that, because that sounds fairly important, if there is a regulation that stops compost being used unless it meets a certain quality - - -

MR JEHNE: Unless it meets, yes, exemptions especially branded and if those exemptions are administered by very conservative compliant-driven processes, then by definition that creates a massive impediment barrier for innovators to sort of get beyond those barriers.

MR WEICKHARDT: So this is a New South Wales government piece of legislation, is it?

MR JEHNE: Regulations, yes.

DR TUNSTALL: It's a new regulation. It's one of these ones where the cost of compliance would be, you know, phenomenal, you could never do it.

MR WEICKHARDT: Could you let us know - I'm not aware of that regulation. Could you, you know, sort of send us the references to that, please.

DR SCHOONEVELDT: Certainly. Perhaps to illustrate how it works, if the company who has got an innovative idea wants to come up with a new product, they've got to go through this process and then get approval.

MR WEICKHARDT: So it regulates the sale of composts or the application of compost?

DR SCHOONEVELDT: No, it prevents the application of any organic material from waste streams to soils. All is out, all of it except for - - -

MR JEHNE: Yes, blanket prohibition up front.

MR WEICKHARDT: From waste streams. So it doesn't stop the farmer making his own compost.

DR TUNSTALL: No, it's a definition of waste.

DR SCHOONEVELDT: If he's making compost at home then it's probably not waste so he might be able to escape that way, but it is a blanket prohibition against putting - - -

MR WEICKHARDT: This is only in New South Wales, is it?

DR TUNSTALL: It's a new change to the regulations in New South Wales.

DR SCHOONEVELDT: Yes, but I can't say whether - - -

DR TUNSTALL: Can't say if others have got it. Actually, Victoria must be fairly similar from what I've seen.

MR WEICKHARDT: Right.

DR SCHOONEVELDT: If I may continue with the point I'm trying to make.

MR WEICKHARDT: Yes.

DR SCHOONEVELDT: Now, they will be happy to provide exemptions if you process that waste stream in such a way that it kills of all the biological effectiveness of it, kills all the soil organisms, it kills everything off, because that will ensure the health authorities that there is no organisms left in that process which are going to cause a problem or you've got it organised in such a way that you can ensure that there are no residual metals or other dangerous products in it. But to effectively kill off the organic value of the thing is counterproductive.

DR TUNSTALL: If you're looking at the trials, basically to get something approved you have to do a whole lot of extensive field trials, you know, going down the soil to a great depth and a whole lot of things which are sort of virtually impossible to achieve in a sense. But if you compare that with sort of adding fertilisers, you already do know what's in them but you also know you're adding nasties that are in them as well as the good things but it's not subject to the same rules.

MR WEICKHARDT: You specifically talk about the superphosphate in this country and cadmium contamination.

DR SCHOONEVELDT: Yes, that's right.

MR WEICKHARDT: The cadmium comes from where?

DR SCHOONEVELDT: It's in the original guano deposits that are there from way, way back in time and they've never had a process - - -

MR WEICKHARDT: Which sort of illustrates one of the potential issues, doesn't it, in recycling, and that is, you know, that superphosphate, is a classic recycling process, uses guano but not all material, whether it comes from natural sources or not is contamination free.

DR TUNSTALL: Indeed. That's right. That is the key issue. There's no question about it. The only comparison here between the organic matter and the fertiliser is the difference in the way it's regulated.

DR SCHOONEVELDT: But we would point out too that natural processes, the way micro-organisms break down organic matter and recycle can handle a lot of these toxic elements. They have done so in the past. We've evolved with a lot of toxins in the soil and we've adapted to them. We're adding cumulatively more and more and more in a rapid period - a short period of time, so rapidly - so that the biological process can't break them down in the time available. So it's the speed at which we're doing it is more the problem.

MR WEICKHARDT: Just going back to the New South Wales regulation, is the alternative waste treatment facility at Eastern Creek that's run on behalf of WSN, does that have an exemption for the material it produces?

MR JEHNE: No, it's a very big problem because in a sense it's been producing - many of the major corporates have been producing, composting and making these generic composts but there's no market for it. They were hoping to use it I suppose to pre-empt the risk of these contaminated generic composts going broad scale onto agricultural land - these regulations have been put in place and now they have a major problem of, "Actually where's the market for this material?" It's very simple. You see the issue is we've got urban waste.

At the moment, sure, we can recycle, you know, bottles and stuff, we can take out green garden waste as in City to Soil, but 60 per cent by volume is the mixed kitchen waste. The whole challenge before the industry is, "Okay, what are we going to do by - decomposing that?" Of that perhaps 5 per cent is contaminants, you know, your batteries, your pesticides and things like that, and while that's sort of in a mixed stream you risk contaminating the whole lot.

Obviously it needs much -you know, not hard - very viable, simple technologies to do source separations and give you verified quality control on that compost. But, again, the innovators who are looking to do that have been crowded out because the whole system doesn't even given them a chance to get the exemptions and to actually set up the markets.

MR WEICKHARDT: So does anyone in New South Wales have an exemption?

MR JEHNE: Well, basically this legislation came through end of last year - I mean these regulations - and so basically there's a lot of debate now: how do different large corporates get exemptions? They're all trying. They're all looking at those angles and quite frankly all the criteria aren't clearly spelt out.

MR WEICKHARDT: No. So, what, in the meantime you say there are mountains of compose building are there?

MR JEHNE: Absolutely.

DR TUNSTALL: Have been for a few years, yes.

MR WEICKHARDT: Is this the reason that the people from ACT NOWaste are concerned about product arriving here?

MR JEHNE: Yes. So the ACT NOWaste would be very concerned about being used as a - to step outside of that legislation because we can drop off that material in the ACT.

MR WEICKHARDT: Is that actually happening?

MR JEHNE: Look, we're an independent science but we don't actually do the, you know, quantity control, but certainly we know there has been approaches to try and do that sort of stuff.

DR SCHOONEVELDT: But that will put pressure on the ACT to come in with similar regulations to stop cross-border movement.

MR JEHNE: But the point being that there are ways of avoiding that. There are ways of getting exemptions but the process, the compliance, as Brian said, the proof of concepts that you have to go through is impossible for a farm or any smaller group to, you know, get to, in a sense, do that proof to sort of be compliant - to be able to use the product and so therefore it goes back to the old standard fertiliser industry.

MR WEICKHARDT: Forgive me for sounding a bit simple, but it seems ironic that a New South Wales government instrumentality, WSN, had contracted with an organisation to build an alternative waste treatment facility and indeed the New South Wales government's contracting with another organisation to build another facility to make compost, and at the same time you're saying the New South Wales government is passing regulations that prohibit this material being used or make it very difficult for it to be used.

MR JEHNE: It has to because otherwise it's transferring the liability for all contamination on to itself and then the public is carrying the risk and the liability into the future.

MR WEICKHARDT: So you think there is some logic behind the regulations?

DR TUNSTALL: There's good reason, you know, but - - -

DR SCHOONEVELDT: It's a different authority so it's the environmental people who of course are pushing the regulations - - -

MR WEICKHARDT: So the left hand - - -

DR SCHOONEVELDT: - - - and of course their industry arm is doing the support for these new industries and they will facilitate - talk to each other about getting the necessary exemption.

MR JEHNE: Our point that the eco-innovations that might be able to solve that or can definitely solve this and sort it out and give you the verified, certified products and guarantees are there but they don't even appear on the debate because they're just small innovators.

DR TUNSTALL: The comments I made before about the sort of competition between industry and agencies applies very much within government organisations as well and that's really, you know, one of the examples of it, that one agency will look after their territory and make sure they've got themselves covered with little regard to the other consequences.

DR SCHOONEVELDT: It comes down to a battle within the bureaucracy and the cabinet process. I spent 15 years in government working at a fairly senior level and Walter has had something similar. So we're very familiar with the kind of battles that go on between different portfolios and we've even dealt with productivity commissioner reports as well and that sort of battle goes on and the decisions come out, well, based on political criteria, not necessarily what's in the best interests of the - - -

MR JEHNE: But there's also another fundamental structural problem, you see; you raised this with Gerry. Okay, we've got $150 per tonne landfill fees, right, collected from the ratepayers under statutory authority, used to support overheads within government, but those fees aren't available as service fees for alternative processing. So if you want to have alternative processing of compost you can't say, "Look, the tax payer or the home owner's already paying $150. I would like competitively to bid for $80 of that to give a superior, verified process." If you want to provide a verified process you have to do that as an additional business while the status quo is still being, in Gerry's terms, subsidised by 150.

MR WEICKHARDT: The thing I don't understand about that still is that the local council, I would have thought would have been entirely happy to have spent the $150 taking this product down a route to recycle it rather than sending it - - -

MR JEHNE: No, because economically - it's sunk money into a landfill. It's set a landfill. It's got overheads. It's factored that $150 times ratepayers into its revenue stream and its budget balance. It has no discretion whatsoever where you've set up a structure where that is a locked-in, protected, wast management paradigm.

MR WEICKHARDT: That's not what the folk from ACT NOWaste said. They're preoccupied with trying to stop - - -

MR JEHNE: Yes, Mugga Lane has got so many years left and at the end of Mugga Lane they have a disaster because where in the ACT are they going to put the next mega-landfill and Graeme's only got a couple of years left to say, "Have I got an alternative solution, otherwise we're going into hundreds of millions of dollars of sunk capital," but the minute they do then the option for innovation has gone for the next 10 years.

DR SCHOONEVELDT: We have been talking to ACT NOWaste people about the possibility of taking that organic slice and composting it here and the conditions they're putting on it are such that it's almost impossibility to manage it.

MR WEICKHARDT: Why?

DR SCHOONEVELDT: Because of the separation. They don’t want to have separation. They've got the bin structure. They've got the collection processes. So we'd need to do something which separated at source to be able to get the cleaner organics and to put them through a separate process. They then want all the risk associated with that to be basically passed on to us.

MR JEHNE: We were basically processing to do proof of concept, pilot demonstration trials. Again, I mean the overhead costs and compliance costs and the risk control costs on even doing the experimental work, you know, was just pushing the status quo far too far. We've got another factor though in this game, that obviously the Australian waste management industry has got so many major firms and you see they're looking at, "Okay, what are my - basically contract fees and what's my minimal disposable costs?" And to them that is still a hole in the ground subsidised by the tax payer. So the waste management industry has no incentive whatsoever to have smaller differentiated regional schemes established, innovations, because they're basically sort of saying, "Look, we're just the service body. We're rent maximisation and at the end of the day we're going to dump it on to a community-owned taxpayer-funded landfill liability."

DR SCHOONEVELDT: It's in their interest, in fact, to go the opposite direction: to have one big bin for everything; put the whole lot in, because that saves collection costs.

MR JEHNE: The crisis that we're getting to with communities is we have communities who have been sorting out in the recycling ethic and have been source separating and then when the trucks come they just co-mingle, ie, they mix it all up again.

MR WEICKHARDT: Of course, I think a number of local councils would point
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listed wastes and the EPHC refers to controlled wastes, each jurisdiction maintaining their own waste definitions and schedules and materials under those categories. The cement industry considers that harmonisation is best achieved through a coordinated policy approach facilitated through a body such as the Environment Protection and Heritage Council. We would hope that such an approach might then address the regulatory impediments to resource efficiency that this industry has experienced.

Our third concern is the judicious use of market interventions. It's our belief that the negative externalities of existing landfill disposal are not yet being fully accounted for, particularly on a full social, environmental and economic basis. We consider that a national government policy response is appropriate to derive implementation of compatible regulation by jurisdictions. We would caution against the use of complicated levy benefit schemes. We consider that landfill controls, be this through pricing, conditional pricing or hazard limits are perhaps the most effective instruments in guiding the community towards improved waste management and greater resource efficiency.

While we agree that product stewardship schemes may be appropriate for certain products in certain markets, experience to date suggests that their role is not well suited to addressing market failures. We do not support product stewardship schemes that provide a differential benefit to different technologies. We believe that product stewardship schemes where winners are picked and supported are not good economic practice and will result in technologies remaining economically unviable and requiring tax payer funded economic support indefinitely. It is our belief that if a product stewardship scheme is initiated then its benefit is to raise the overall value of the secondary material in order that markets will develop with viable markets succeeding. We do not believe that product stewardship schemes should interfere in natural market development by picking winners through benefit discrimination. Thank you.

MR WEICKHARDT: Thank you. Do you want to say anything, Robyn?

MS BAIN: No.

MR WEICKHARDT: No? Okay. Well, I'm, sort of, starting at the back of your comments but it's, sort of, a bit topical, all this. This product stewardship case study you mention on recycled oil where the 50-cent, I guess, contribution or subsidy is applied to you know, sort of, recycling that back into lube oil and three cents for fuel. How were those values set? What was the mechanism by which they were set?

MS BAIN: We're very unclear as to how they actually were set in the beginning. The government quite recently had Allens have a look at the oil stewardship program and have - - -

MR WEICKHARDT: This is a Federal Government program?

MS BAIN: This is a Federal Government program. It was a consequence of - the Democrats had asked for the oil stewardship program during the course of trying to have their GST implemented and was one of the results of the GST. It actually has a body of its own the Oil Stewardship Advisory Council of which we at one stage were members, we're currently not and we've been unable to find out why. So we're not really clear as to how they ascertained the 50 cents or 3 cents but the Allens report did point out that they believe the environmental value from lube to lube or energy from waste was similar and therefore we shouldn't have the 50 cents/3 cent differential so I can't really answer how - - -

MR WEICKHARDT: How long have they been in existence?

MS BAIN: GST was 2000, so five years.

MR WEICKHARDT: It just came in straightaway, did it?

MS BAIN: Yes, it was established very soon after.

MR WEICKHARDT: And you gave the impression that this, sort of, change is only recently starting to bite or have I got that wrong?

MS BAIN: No, you have actually got it right. What has happened with a lot of the liquid waste, particularly for the plant at Dandenong, is that a lot of different companies - for example, paint coming water-based rather than oil-based - and so as companies are actually becoming more aware of the environmental impact, they're changing the way that they produce their product and so the liquid fuel that's used as the calorific value to carry the fuel is actually starting to dry up - or there's not as much of it around as what there was so the need for oil has greatly increased because of the other liquids coming on.

MR WEICKHARDT: I see. Other liquids were also being used in this - in burning in cement kilns, were they, and it's those that have declined?

MS BAIN: That's right. It's actually - we don't put other liquids directly into cement kilns. The plant at Dandenong is quite unique in the way that it operates in that a lot of liquid wastes are sent to Dandenong, and that could be the sludge out from the fuel tankers when they wash the fuel tankers out, paints, off-spec paints, waxes, greases, out of date agricultural chemical - so quite a significant amount of waste can actually go into the plant.

MR WEICKHARDT: Whose plant is this?

MS BAIN: It's called Geocycle. It's actually owned by Cement Australia - or it's a subsidiary of Cement Australia, one of the cement plants. But their role in life is to produce the fuel to go into the kiln from a variety of wastes, those wastes come from - which is not particularly efficient - but may well come from Queensland or Western Australia, it all comes in to the Dandenong plant. There are half a dozen chemists based at that plant and they control what is mixed into the fuel. The fuel for the cement kiln has quite a tight specification so when they get the calorific value up to the content - or to the specification that is put down by the cement kiln, it's then put into an ISO tanker and railed - yes, railed up to Gladstone. So it may come down from Gladstone, mixed and then go back up to Gladstone. So as a consequence there's only - there's one other plant in Australia and that's based in Brisbane and I can't recall the name of it - BCD Technologies.

MR WEICKHARDT: BCD?

MS BAIN: Mm'hm.

MR WEICKHARDT: Mm'hm.

MS BAIN: BCD are actually licensed to take Schedule X waste. The plant at Dandenong doesn't take Schedule X waste. The reason for that is if you put Schedule X waste into the fuel then you require a lot more liquid to be able to carry Schedule X waste and, as I say, the liquid fuel is actually harder and harder to ascertain. Therefore the dependence on waste oil, because it does have such a high calorific value, has become very important to that particular plant.

MR WEICKHARDT: Okay. Can you clarify for me which department actually administers this oil stewardship advisory council?

MS BAIN: Mm'hm, Department of Environment and Heritage here in Canberra under the waste division.

MR WEICKHARDT: Have you made representations to them?

MS BAIN: Yes, frequently.

MR WEICKHARDT: What sort of response do you get about this issue?

MS BAIN: Well, there's a lot of waste oil around, go and seek some more.

MR WEICKHARDT: But in terms of explaining the 50 cents versus 3 cents issue, is there any light been shed on that matter for you?

MS BAIN: No.

MR WEICKHARDT: Okay. Elsewhere in the world I assume oil stewardship programs of a similar sort operate and the cement industry presumably elsewhere in the world burns, you know, sort, old oil. Do any similar product stewardship levy, you know, allocated benefits exist elsewhere? Do you know?

MS BAIN: Certainly not to my knowledge. The cement industry, particularly in Europe, use a significant amount of alternative fuels and that's probably one of the consequences of having not as much land as what we do so landfill to them is not an option. No, I don't know is the answer of whether or not a stewardship scheme exists.

MR WEICKHARDT: Okay. You mentioned, just on that topic, in your submission, in Australia 6 per cent of total thermal energy requirements were met by liquid alternate fuels. You then change units and talk about Europe using 4 million - I guess it's 4 million metric tonnes of alternative fuels. What is that as a percentage, do you know, of their fuel use? Are we, sort of, up with them or a long way behind them?

MS BAIN: We're a long way behind Europe. It depends on which country you're looking to: Sweden, Norway can get up to 60, 70 per cent replacement.

MR RITCHIE: There are examples of kilns that are running 100 per cent on alternate fuels.

MS BAIN: It really, you know, it is dependent on how small the country is and how much landfill that they have as an alternative to it. It's very important for the Australian cement industry to reconfirm that we just won't take any fuel. It does have to have a calorific value or a mineral content. So if it fills either one of those criteria then it could go into the kiln. There are examples of around the world - particularly Japan who use waste as fuel but some of the waste that goes in is not necessarily fuel or it doesn't necessarily have the mineral content. It's actually a way for Japan to just dispose of their waste.

As a consequence of that they don't particularly make very good cement. So for the companies of which we represent, their number one priority is to make cement and if they can make cement by the use of alternate fuels or raw materials reducing their energy costs or their resource costs, then that's an added bonus. There was during the Panadol scare - there were some people asking whether or not the Panadol could go into the cement kilns as a way of disposal and it doesn't really have much calorific value nor mineral content so we don't see ourselves, although at times we're criticised for - we are not incinerators, we're cement makers.

MR WEICKHARDT: Just in terms of this issue of the way you're seen: you describe this rather frustrating experience at Berrima where you sought permission to use tires and other waste fuel or other fuels. Can you describe with the benefit of 20/20 hindsight whether or not there are things that you could have done differently that would have given a different result in terms of representation to the local community in trying to alleviate any of their angst.

MS BAIN: That really is the key to it, is that the cement plant has been in Berrima for 125 years and there was to some extent a feeling, "We've always been here the community knows and understands of how we operate," without really taking into account there's quite a tree change happening at Berrima and Bowral and - so there are people with concerns that were really articulated or not engaged early enough when they first started to consider whether or not the use of alternative fuels could go into Berrima. So they should have been engaged at the very beginning of the process; they weren't.

There were some people that live within that region who believed that the use of tires would create a major increase in dioxins and that those dioxins would fall over their green rolling hills and people would start developing illnesses. That actually just scared the community so that should have been done quite a lot earlier. I guess also trying to explain what dioxins are and how they actually interact with the cement kiln, like, should of taken place better. Scientists are really - and chemists are really very talented but in articulating some of their craft it's not necessarily their greatest skill. There should have been more emphasis not to worry about what goes into the front end of the process, what you're worrying about is what comes out of that stack and how through the chemical change that happens within the kiln; that that can be controlled and monitored and carefully maintained. So certainly that should have happened and perhaps a lot more work should have been done with the government officials in New South Wales.

MR WEICKHARDT: To what degree did you find on a local government or state government being highly supportive of what you were doing in terms of this application and using alternate fuels or to what degree were they part of the problem?

MS BAIN: Local government are very supportive of the whole project so we didn't have a problem and still don't have a problem. State government are still not supportive even though the license has been granted, you couldn't say that they are in any way supportive. There's a belief that we are incinerators, that we view a kiln as an incinerator and therefore if they open up tires or carbon dust then it's the beginning of the end; that once we get a licence then, you know, we're going to go for broke.

MR RITCHIE: I think there was exhibited a clear lack of a policy on the whole issue by the state government, and as a result we had individuals within government that would portray a certain stance in relation to the issue and that - so the reality was there was not any tacit or explicit support for the project. By contrast with that, we have examples where a good engagement strategy with both the community and the government has had very good results in particularly identifying what the community's concerns are in relation - and, I mean, they're understandable and they're well known, but actually addressing those concerns to the community.

But it's obviously a lot easier if the government is not fighting in the background with, you know, different attitudes towards the whole process, and I guess that's what drives a lot of what's in our submission in terms of the background to legislation, the way we take very much a prohibition response to these things rather than looking at the technical science. Our submission doesn't go into the technical aspects of using particularly alternative fuels because - I mean, obviously that's a big issue and certainly we can provide more information on those issues about emissions and dioxins and furins which people raise.

But the other side of it, I think - I mean, there's the alternative fuel side, but also there's the cementitious material side, and that's a well-established use of secondary materials, even to the point of ignoring the fact that they're cementitious materials. You know, we use them - builders have used them for years and years and years, and yet, you know, we still have regulatory impediments where you could argue the use of those materials in some states is illegal, even though it goes on. That brings to light to us the sorts of regulatory impediments that we have.

MR WEICKHARDT: Can you just help me with that, because you've suggested that sort of once the material has gone to waste it's, you know, condemned, and it makes it difficult. So why do the power stations not sell the product to you as an alternate cementitious material?

MR RITCHIE: Because the lists of regulated controlled scheduled waste actually lists things like fly ash as being on that list. So if you take - you know, a good example, albeit an old one, was the legislation in Queensland when they brought in the new Environmental Protection Act there. They had a list of regulated wastes which was drawn from the Basel Convention, listed fly ash as a regulated waste. But then the definitions within the legislation would - and there was a lot of contention amongst us, but the wording was anything that has contained those wastes would also be classified as regulated waste.

We had the absurd situation where commonly-used blended cements were suddenly captured as regulated wastes, to the point that if you went down the local hardware, you might require a licence to actually carry that bag of cement back home, and the hardware would need a licence to store it. Now, to some extent that situation still exists, and it's only by virtue of a policy - a subsequently-made policy of the government - that they won't enforce that legislation that we're able to sell blended cements.

That's common amongst all of the states, that they will explicitly list a material which catches, you know, a whole range of things. Fly ashes - and yes, there are fly ashes that have hazardous properties, but there are also fly ashes that are, you know, effectively inert. So the essence of our case is saying, "Well, don't call things fly ashes and prohibit them. Let's look at what their characteristics are and address them on that basis."

MS BAIN: The same applies with slag as well. If we can just go back a tad to the New South Wales experience with alternative fuels, if we have a look at Western Australia and South Australia, the plant at Waurn Ponds, near Geelong in Victoria, it substitutes 50 per cent of its fuel with alternative fuel and they use carbon dust, tyres, tallow, waste oil, and that’s it, they run four into there. In South Australia the plant there uses demolition timber, and they're actually just increasing their demolition timber into the kiln there.

So how can Victoria and South Australia do that and New South Wales do something completely different? Even if you really go into it and have a look at South Australia and Victoria, you still find some variance in how they operate, but at a policy level, it's supported that energy from waste is certainly an alternative to landfill and Victoria are quite proactive in terms of looking at waste for energy.

For example, the sewerage in from Werribee in Victoria, potentially if we could get it right, there is potentially 70 years' energy - - -

MR WEICKHARDT: There's - - -

MS BAIN: 70 years of potential energy sitting there without - that could actually go into the cement kiln, and - - -

MR WEICKHARDT: Meeting your calorific requirements?

MS BAIN: Has very good calorific value. So the department, EPA and the industry, are working very - and the research agencies in Victoria, are working as one to try to overcome the difficulty. The difficulty with the sewerage is that it has a high mercury content and of course we can't put that near a kiln. So it's how do you get the mercury from the sewerage sludge prior to it going to a cement kiln? That's really - it's more than a philosophical difference between New South Wales and Victoria. To some extent Queensland have been helpful in terms of edging energy from waste or alternative fuels into the cement kilns.

But there is no policy. At a federal level there is no policy. What we have is that hierarchy that people keep going back to for waste and maybe - and I can't confirm that - maybe it's that hierarchy that has resulted in the levy system of the oil stewardship program. I don't know.

MR WEICKHARDT: Okay. That's interesting. Just a couple of questions. First of all in terms of using these alternate fuels, what sort of financial advantage does a cement kiln need to be induced to use these materials, which must be more variable than some of the other alternates - just, you know, normal gas, or whatever is used? I mean, if the alternate fuel calorific value was priced at exactly the same price as gas, would the cement industry use it? Do they need a financial incentive?

MS BAIN: Well, I haven't - history has said no, they haven't needed a financial incentive like the stewardship program. Tyres in - most of the waste in Victoria is actually just tyres are dumped at the kiln and then they're processed prior to going into the kiln. To put a piece of infrastructure in to deal with alternative fuels could vary from two million, dependent on how simple the line would be, up to 5, 6 million. So there is a reasonable amount of, like, capital that needs to go in. The most significant part is actually the trialling of the fuel itself because there are several points within the cement plants where you can actually put the fuel into and they call it the front end or the back end of the kiln so that's probably one of the greatest costs apart from the capital is just running through the trials and making sure that they have got it in the right place measuring those emissions and that takes significant work.

With Queensland, the cement plan at Gladstone, how long did the trial go for up there?

MR RITCHIE: The trials, it depends a little bit how they're structured but usually you would need to run the plant and using the materials for about a week to get the stability and conditions and cycles within the kiln and then testing. Often what happens is that an arrangement is come to with the administering authority that you in fact continue to run after that because it's difficult to switch on and off with these things and then depending upon test results they'll subsequently approve the process but there is a lot of money in testing and testing round for a trial might be as much as $100,000 a pop and I guess that's one of the issues we have come across is that some jurisdictions won't accept that that record or history of monitoring of emissions.

They will just seem to shut their eyes to what's happening in other states and force a proponent to do, you know, an extended round of testing to meet their requirements and that's a frustration that I don't think is necessary. We should be able to - and we have an extensive pool of data. On the issues of dioxins and furins we probably have one of the best industry sets of data on dioxins and furins because it was recognised as a potential issue early on and so that monitoring still goes on to this day.

MR WEICKHARDT: To have a cement kiln if you're building one from scratch capable of using these alternate fuels and meet the regulatory requirements for dioxins, furins or whatever else were in the emission standards do you have to have some other capital equipment, you know, sort of after-scrubbers or after-burners or other things that you wouldn't apply if you were simply using, say, natural gas?

MS BAIN: You have got your feed lines in the kiln to go in as the feed line of the fuel into the kiln is probably the greatest capital - - -

MR WEICKHARDT: No sort of after-treatment of the emission gases?

MR RITCHIE: No, and I guess that's what makes the process so well suited for alternative fuels is that we have very high temperatures within our kiln and there are quite extended resonance times; much more so than a purpose-built incinerator and a caustic environment, Alphaline environment, which deals with acid gases which are often associated with waste incinerators so while there are some issues, very specific issues, that need to be checked and confirmed, by and large a modern cement kiln will require no post-combustion infrastructure to deal with any change in emissions. In theory there should be no change in emissions.

MR WEICKHARDT: Thank you. We have had a submission from the Tyre Association - and I have got that name wrong - but Tyre Recycling Association who, in their submission, perhaps again as you have alluded to, driven by the waste hierarchy sort of talk about almost the last thing they want to see is tyres just burnt and there are in their view sort of higher and more meritorious uses of tyres. You have made the point that surely the market would sort this out and the value that you're prepared to pay for tyres versus the value that other people are prepared to pay to crumb rubber and reuse rubber in playgrounds would sort of sort itself out. My question about, you know, what are you prepared to pay for tyres was in that vein. If there was a competitive market for tyres and alternate applications were being used that, you know, sort of actually meant that tyres weren't just dumped at the kiln, that you had to pay for them ,would that destroy their attraction to you?

MS BAIN: No, it depends on what type of kiln. See, the one in Victoria runs off gas which is obviously a lot higher than coal so the tyres in a Berrima plant would have to compete against the cost of coal. In Victoria and in South Australia those kilns run off gas so, you know, the plant would determine how much they're prepared to pay for fuel. I can't see tyres being as high as gas or the demand for them.

MR WEICKHARDT: Yes.

MS BAIN: It's interesting with waste tyres, and quite frustrating. If there was a perfect world out there and we had all of the capital that we needed across all of the kilns there is somewhere about $10 million capital to put the feed lines in to run tyres and we could take 10 million car tyres each year within, say - if you got the tick today it would take probably 12 months to get the lines in to do the testing, get everything right, we could actually start disposing of about 10 million each year but we're not and we haven't and the whole tyre round-table which is a very frustrating part of DH's program trying to get everybody together to set up a system not dissimilar to the Oil Stewardship Council - we have been sitting on that for four years and we keep saying, "Well, we're here, we could take 10 million," and the waste hierarchy say, "No, once you get your hands on those there won't be any for us." It's like - - -

MR WEICKHARDT: I seem to remember they quoted 29 million per year generated.

MR RITCHIE: 18.

MR WEICKHARDT: Sorry?

MR RITCHIE: 18 million.

MR WEICKHARDT: 18.

MR RITCHIE: Almost one per capita.

MR WEICKHARDT: Yes.

MS BAIN: That's a lot of tyres.

MR WEICKHARDT: Even if you took 10 there would still be 8 million tyres left.

MR RITCHIE: But I think more the point is that those other uses or other markets aren't there. They're only there in a very small way so we're still seeing tyres being dumped or landfilled and we look at that and say, "That's a waste of a resource. That shouldn't be happening and we should be taking those." It has been the experience of the cement industry globally that often the use of materials as energy for fuel precipitates high value uses for materials and that's fine. There are a number of examples round where you can see that happen. I guess our only concern is at the end of the day that we at least get our capital payback out of the process.

MS BAIN: Yes.

MR RITCHIE: And then, you know, we'll move on to other things but we haven't - if there are higher value markets out there eventually tyres will be outpriced for us as a fuel and that's why we say that these product stewardship schemes shouldn't pick winners. They should, you know, give the value of material a kick along but the market will take over from that point if the markets are actually there and I guess that's our point; that often these arguments are made on a philosophical that if we produce lots of crumbed rubber there would be a market there for that to go to but (a) the technology is not there in an economic manner and we haven't seen the markets developed.

MR WEICKHARDT: Today, how many times do you take or does the cement industry take?

MS BAIN: In actual numbers in Victoria we take 60 per cent. I can come back to you with the actual number but it's 60 per cent of metropolitan Melbourne's tyres going through the Waurn Ponds kiln and a very small amount has gone into the Queensland - this is only one kiln - that takes tyres.

MR RITCHIE: I think we have the capacity - we have taken up to 20,000 ton a year. At the moment we're round about 10,000 ton, a little bit over 10,000 ton. I think there's about 100 tyres to the ton roughly so we have capacity for 2 million. We have probably taken about one at the moment. Is that right?

MS BAIN: Yes.

MR WEICKHARDT: What's stopping you taking the two?

MS BAIN: This is at Gladstone. The difference is with Gladstone it's a coal-based kiln, not a gas-based kiln, so it's putting the feed lines in. The feed line that they had in originally is quite a simple one where you actually had to have men come and pick up your tyre and put it on and then it just went up a conveyor belt. When it actually dropped into the - that's pretty simple, isn't it. When it came up and actually went into the kiln it had - it takes about three seconds for a tyre to combust once it actually goes into the kiln but it had a problem that it sat on a ledge just because the kiln is - every kiln is just slightly different in the way it's made so it sat on the ledge and created quite a blockage so when the clinker came out the other end it was quite lumpy clinker so they had a lot of difficulties up there.

They really need to put a mechanical system in not dissimilar to the one at Waurn Ponds, it's a fully automated system, so instead of a guy on the thing, you get a loader and a whole bucket load. They travel up a conveyor and sort themselves out. Eventually it comes in to a single line so it's one tyre. Before it goes into the kiln that tyre is weighed to ascertain the calorific value in it and dependent on the weight they may drop a tyre every eight seconds or 10 seconds or 11 seconds. That's what has to happen up at Gladstone. To do that is a lot of money. To do that you have to have security of resource, so as Stuart said before, you need a three or four-year payback to guarantee your capital.

MR WEICKHARDT: Yes.

MS BAIN: This whole waste tyre round table that has been going for four years has done little to provide security. In fact people have just sat there and said, "Well, will we actually look at other things until they can sort the tyre thing out?"

MR WEICKHARDT: But what I'm trying to understand is is there today a physical restriction on you getting your hands on more tyres or are you concerned that there might be some levy scheme applied, as in oil, that would actually disadvantage you and therefore not give you the payback? I mean, in Victoria, for example, where you have got the automation are you able to access as many tyres as you possibly want?

MS BAIN: They have got contracts with some of the tyre recyclers so they have been unable to put those contracts in long enough to worry about their capital.

MR WEICKHARDT: Right.

MS BAIN: In New South Wales - - -

MR WEICKHARDT: But they have got the capital in Victoria now?

MS BAIN: Yes, they have got it in and it will be starting to go down the payback. They have had it in MR Right. WEICKHARDT:

MS BAIN: In New South Wales - - -

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MR WEICKHARDT: But they have got the capital in Victoria now?

MS BAIN: Yes, they have got it in and it will be starting to go down the payback. They have had it in MR Right. WEICKHARDT:

MS BAIN: Probably it's slow because in the whole priority of the agenda for EPHC waste is fairly low down the list of priorities and they've been attempting other processes like the whole pro-Oil Stewardship waste tyre program as maybe that might be the way around it. I don't believe there's been a focus on waste and it's quite difficult because the waste industry is such a small industry in that, you know, there are some who are larger, like quite clearly Visy is right into waste and they're at one end of the scale, but so many of the waste collectors and distributors are just small businesses; maybe it's because they find it hard to deal with so many small businesses.

But our experience with the government at the federal level has been - we've been there. We're participating. It is slow. There has been no progress on waste tyres. With waste oil we can't get answers to the questions and really this is not our area. From a senior bureaucratic level we're told constantly, "This is the state's problem. Why do you want to involve the commonwealth. We have no jurisdiction over this. Go and talk to them," and we say, "Well, this covers state boundaries."

MR WEICKHARDT: If harmonisation had to take place by everyone else adopting one of the current state's policies, which state would you prefer, if that was the only option that everyone follows?

MS BAIN: Victoria or South Australia. The one that we really do not want is New South Wales. I think we need to go to the highest common denominator and not the lowest.

MR WEICKHARDT: Yes, okay.

MS BAIN: It's not only just regulation. I guess that's what we've found. It's also the officials. It's the proactive approach that they take to it.

MR WEICKHARDT: Okay. That should give us some interesting issues that we will talk to the New South Wales department about when they hopefully come to the Sydney hearings.

MS BAIN: We should go and listen.

MR WEICKHARDT: Thank you very much indeed for coming to the hearing. It has been extremely useful and thank you very much for your submission which we enjoyed reading.

MS BAIN: Pleasure.

MR WEICKHARDT: Now, that concludes today's scheduled proceedings and for the record is there anyone else who wants to appear before the commission today? I think the answer is no, so I adjourn these hearings and we will resume in Melbourne on Wednesday, 22 February. Thank you very much.

AT 2.46 PM THE INQUIRY WAS ADJOURNED UNTIL
WEDNESDAY, 22 FEBRUARY 2006

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