T R A N S C R I P T

LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into Recycling and Waste Management

Melbourne—Tuesday, 8 October 2019

MEMBERS

Mr Cesar Melhem—Chair
Mr Clifford Hayes—Deputy Chair
Mr Bruce Atkinson
Ms Melina Bath
Mr Jeff Bourman
Mr David Limbrick
Mr Andy Meddick
Dr Samantha Ratnam
Ms Nina Taylor
Ms Sonja Terpstra

PARTICIPATING MEMBERS

Ms Georgie Crozier
Dr Catherine Cumming
Mr David Davis
Mr Tim Quilty

WITNESSES

Dr Nicholas Aberle, Campaigns Manager, and

Ms Taegen Edwards, Senior Campaigner, Environment Victoria.

The CHAIR: Thank you. I welcome our next witnesses, Ms Edwards and Dr Aberle, from Environment Victoria. Thank you for making yourselves available today. I am just going to go through some formal stuff with you.

All evidence taken at this hearing is protected by parliamentary privilege as provided by the *Constitution Act 1975* and further subject to the provisions of the Legislative Council standing orders. Therefore any information you give here today is protected by law; however, any comment repeated outside this hearing may not be protected. Any deliberately false evidence or misleading of the Committee may be considered a contempt of Parliament. All evidence is being recorded—in fact it is actually being broadcast live on our website. You will be provided with a proof version of the transcript in the next few days.

Now, there are a lot of questions, and we have got a significant number of Committee members here today. We do have your submission—it is a great submission—so what I was going to suggest is that you probably restrict your opening statement to about 5 minutes and you make your top points, and I am sure that you in sitting here will be able to answer a lot of questions from the Committee. Who would like to kick off?

Dr ABERLE: Yes, I want to do that. Thanks.

The CHAIR: Dr Aberle, thank you.

Dr ABERLE: Thanks to the Committee for the opportunity to present here today. I just want to start with some reflections on why this Inquiry is even happening. It is in our opinion not actually because of the China National Sword policy, it is not because of fires in recycling facilities and it is not because we find it confusing having red bins, yellow bins, green bins, red bins or whatever. I think we are having this Inquiry because here in Victoria our lives are fundamentally unsustainable. To say nothing of the chart-topping greenhouse gas emissions per person that we produce here in Victoria but to focus exclusively on our use and abuse of materials, our lives are unsustainable, and that is what has caused our problems with waste management. There is simply too much waste.

Each Australian on average produces around 2.2 kilograms of municipal solid waste each day. This puts us third on the global list of producers of waste, slightly behind only the US and Canada. To round out the list of countries that we like to compare ourselves to, our cousins in the UK produce 25 per cent less waste than Australians do. Suffice to say that with the exception of a few Western European countries the rest of the world produces vastly less waste than we do. Do we need to improve our waste recycling systems? No doubt we do, and I am sure you have heard a lot of evidence on that already and will continue to hear more throughout this Inquiry. But focusing only on the end of what we and others have called the 'take, make, waste' pipe, which is a pipe that characterises our current economic model, is dealing with only one side of the coin.

Just a little bit about how we see the problem: since 2010, governments on both sides have failed to spend enough to address this problem, which has of course through that time allowed the problem to grow much larger, to the point that we are in this Inquiry today. I think one key example of that underspending has been the growth rather than the use of the Sustainability Fund. I do not have figures going all the way back to 2010, but for the last few years approximately $80 million has been going into the Sustainability Fund, but from 2010 through to 2017–18 barely less than half of that was being spent. In fact for the first five years of the decade it was only around $10 million to $15 million of the $80 million that was going in each year.

The Sustainability Fund is now a very large bucket of money. In the last couple of years we have started spending more of it, but our failure to spend it throughout the early years of this decade has put us in this situation.

I just want to go into a few solutions now, or possible solutions, and I just want to say that we are not necessarily policy experts on all of the things that will be covered by this Inquiry. We do obviously have some experience in the area. We are primarily here, I think, to represent the views of the many Victorians, including our supporters, who are very concerned by these issues. Having said that, we will do our best to answer your questions, but apologies if we do not have as much detail on solutions as some of the other people you will be hearing from.

I guess following on from my point about the Sustainability Fund is that the first step in finding solutions will obviously be investing in them. To boost our capacity to do that and to create further disincentives to the creation of wastes, we submit that the landfill levy should be increased here in Victoria. At the moment our landfill levy is currently less than half of what it is in New South Wales.

Beyond the relatively simple matter of investing more or saying that we should invest more I just want to touch briefly on a few other options that we think the Inquiry should be considering. There are obviously changes that need to happen at different scales. Some of that will be at the government and industry end; some of that will be at the consumer end. For changes by consumers we would say that that needs to be relatively straightforward. We think people are certainly capable of coming to grips with another bin, if that is one of the recommendations that this Inquiry might make. People in other countries certainly seem to be able to deal with multiple bins. I see no reason why the good people of Victoria could not do the same.

One quick comment on the organic and food scrap collections that many councils have in place: the anecdata that I have, and I stress that it is anecdata only, is that the people who have it absolutely love it. I have spoken to people in different councils. I believe it is only about a quarter of councils that have that in Victoria, but every person in each different council who I have met who has that is like, 'I love it. I just put everything in there. It's great'. I cannot speak for how the councils find that—whether they are finding any contamination in there I have no idea—but certainly we would support rolling that kind of scheme out statewide.

Another thing about how consumers are involved in this is we cannot expect consumers to make the right decisions if we do not give them the right information. At its most basic, just having consistent sorting rules across councils would be a really good start. At the moment we have different rules. That leads to confusion. If you move from one place to the next you might have been putting your number 7 recyclables in your recycling bin before but now you cannot, but you do not know that. Another point around the lack of homogeneity in recycling rules, I guess, is that it prevents investment in a statewide public awareness and education campaign, because each council has its own so you cannot just have a single awareness campaign. Obviously that would help the people who are not doing the right thing right now, and that might be people who just do not care that they are not doing the right thing but there are a lot of people who are really trying to do the right thing but just are not sure. That includes people in our office who are often standing at the recycling bin going, 'Can I put this in? I don't know'. And if we do not know, then who does?

Another way of helping consumers make the right decisions is around labelling. I acknowledge that this is something that is probably difficult at a state level, but we still would be very keen for the Inquiry to consider it. One example is the European Union's eco-label system which for over 30 years has been providing consumers with a very simple indicator of whether a product has genuine environmental credentials. The eco-label includes an assessment of the extraction of raw materials and the production, packaging, transport and disposal of that product. It operates in the same way as a Heart Foundation tick. It is on there or it is not. It is not like a nutrition panel that gives you lots of data. It is just there kind of like an endorsement, I suppose. A labelling scheme could also help provide the ability to police some of the marketing spin that we see on products that call themselves 'green' or 'compostable' or 'degradable', which can be confusing for many people, including me when I was trying to buy a bin liner last week. I am happy to go into that more later.

So we would certainly support moves that help consumers make better choices, but we do not believe that consumer information and consumer choices alone can solve this problem, so governments do need to intervene more directly. One major role that we see for Government, particularly State Government, is shifting towards a circular economy, and we note that the Victorian Government is in the process of developing a circular economy policy and action plan, which we welcome. The time frames for that we believe have been brought forward now toward the end of the year. This has some positives and negatives. It is positive that we will be seeing the action plan hitting the ground sooner rather than later, but we are concerned that bringing that

time line forward might result in less transformational policies than we need. Shifting to a circular economy is about not just material efficiency but also providing significant opportunities to cut greenhouse gas emissions, and that is certainly something that we need to do here in Victoria. The EU's circular economy package as a whole is estimated to save around somewhere between 450 million and 600 million tonnes of CO_2 every year, which is equivalent to over 1 per cent of global emissions, which is also equivalent to all of Australia's emissions. From the European economy as a whole, by shifting to a more circular economy they are effectively wiping out all of Australia's emissions, so that obviously means that we here in Australia could make similar inroads. In the EU, as in Victoria, once you electrify and decarbonise—am I getting a wind-up?

The CHAIR: Yes. If you can wind up in the next few minutes, then we can allow for questions, if that is okay.

Dr ABERLE: Sure. There might be some questions on waste to energy, but maybe I will just say at the outset that we do not see waste-to-energy facilities as any kind of panacea to the waste situation. It is important to note that not all waste to energy is created equal. Anaerobic digesters are very different from just incinerating rubbish, and as the previous presenters indicated we are concerned that the wholesale incineration of rubbish is going to undermine efforts to improve recycling in this State.

I will finish with just a few quick thoughts on some of the interventions that were listed in the terms of reference that were being considered or that comments were invited on. Product stewardship: we certainly would support greater focus on that. We are aware that there is federal legislation, but it is certainly falling short of requirements. A container deposit scheme: we would certainly welcome that. I understand you are hearing from the Boomerang Alliance this afternoon who will probably go into a lot of detail on that, so we will happily leave that to them. Banning single-use plastics: again we support that kind of approach where appropriate. Government procurement policies really are essential in creating a baseline for demand for the kinds of products that we need to be supporting to help create those markets so that not everything is going to waste.

The CHAIR: Thank you. Now we will just move to questions. We will start with Dr Ratnam and work our way that way. Can I just ask the Committee if we could have quick questions, a quick answer and then we can do the round again if we need to. I do apologise because of the time.

Dr RATNAM: No problem. Thank you very much for the presentation and the submission; very useful. You talked in your written submission about essentially putting a price on virgin plastics, so the price mechanism, and I want to reiterate, as we were talking to the previous presenters, we are really interested in some solutions that we could recommend through this Inquiry that the Government can get on with doing. Can you talk us through the rationale for putting a price on virgin plastics and what kind of impact that would have and the benefits you could see of that?

Dr ABERLE: I think it is a pretty basic principle of how economies work: if you want less of something you put a tax on it. It serves as a disincentive for producing the thing that you do not want and serves as encouragement or a competitive advantage for the things that you do want more of. Obviously state governments do not necessarily have all the taxation powers that they might like, but it is certainly something that we think should be looked at. It does not necessarily need to be directly through a new tax, but for example industries that are producing more sustainable products could be given a break on payroll tax, which states do control. There are some measures like that that are a bit more indirect. But, you know, at the least working with interstate partners through COAG as well, perhaps.

Dr RATNAM: Have you seen any good examples of that being put into practice around the world that we could maybe point to, or even if you know of a country that we could explore?

Dr ABERLE: No, in the interests of a short answer.

Dr RATNAM: Okay, no worries. We will look into it and keep in touch.

Mr LIMBRICK: Thank you very much for your submissions today. Dr Aberle, I just wanted to ask two questions on two different topics. One of the things in your submission talks about raising the landfill levy. We have seen that one of the unintended consequences of that is that it incentivises criminal activity, effectively because it is creating a barrier, right? Another unintended consequence of it was that it has actually made other technologies such as waste to energy—their business cases have been substantially improved. What do you

think would be the effects of increasing that? Would we see more organised crime and illegal dumping due to an increase in this? I will let you respond to that.

Dr ABERLE: I do not want to speculate on whether we would see an increase in organised crime. I am not involved in it, so I am not sure. I cannot speak on their behalf.

The CHAIR: Denying it upfront. That is enough already.

Dr ABERLE: One comment: I think in New South Wales, where they do have a higher landfill levy, they have seen illegal dumping across the border in Queensland, where there is no landfill levy. So I think in that sense, just with that kind of cross-border dumping, we obviously would not see that problem here in Victoria because if we were to increase our landfill levy in line with New South Wales, there is no incentive to drive north to dump it across the border. I am not sure what South Australia—

Mr LIMBRICK: So you are talking more about harmonisation rather than raising it wholesale? Is that the concern, to stop this arbitrage?

Dr ABERLE: Well, I think there are two things there. You do not get an incentive to cross into another jurisdiction to dump it or to dispose of it through legal channels if the legal channels in that state have the equivalent levy as your state. I cannot remember the other point I was going to make there. I think in terms of the illegal dumping side of it, within the jurisdiction we have just seen the EPA go through the biggest reforms it has had in its 40 or 50-year history. They have not got increased powers to look into the waste system and greater capacity to have their staff out in the field. So I would kind of point to that as one potential mitigating factor that could be used to discourage or penalise any illegal dumping that happens within Victoria.

Mr LIMBRICK: I have one other question, if I may, Chair. On the topic of waste to energy, we seem to talk about this just about every time, specifically the Maryvale paper mill. I actually read your submission to the EPA on the Maryvale paper mill. You expressed some scepticism about the claim of reduction in carbon emissions. As I stated before, you might have heard that my understanding was that the reduction in carbon emissions was due to the increased thermal efficiency and stopping the use of fossil fuels, as they do now, because they require gas. Their whole reason for doing this is that the gas is too expensive now, and so this is a more beneficial option—a more economically sustainable option from their point of view. What is your response to that? From their point of view, I understand there might be problems with locking in waste volumes and things like that, but from their point of view their option is, from what I can see, use fossil fuels, use waste to energy or shut down. They said that they did explore other technology options like renewable but they could not get industrial heat generated on the scale that they require using renewable energy. What would you say to them? What are the options here?

Dr ABERLE: One point around the greenhouse gases: proponents of some of these waste-to-energy projects do make, I think, some generous assumptions about the greenhouse gas impacts. I take your point that what they are doing is offsetting gas consumption, but I remember in their application to the EPA for the works approval they were also basically saying that by burning rubbish to generate our onsite steam we are actually avoiding the use of coal power. So they were comparing it to the emissions intensity of grid and/or coal emissions intensity.

Mr LIMBRICK: That is their other option, though—to move to coal from gas.

Dr ABERLE: Except that if you were using coal instead you would actually be using electricity from the grid. If that, why wouldn't they be entering a power purchase agreement with a wind farm or a solar farm with battery storage as an alternative?

Dr RATNAM: Exactly, yes.

Dr ABERLE: Because they are not buying it from coal, right? They are just buying electricity from the grid.

Mr LIMBRICK: No, they are taking the gas directly at the moment.

Dr ABERLE: No, that is what I mean. But if the alternative is using electricity to generate—

Mr LIMBRICK: I am not sure electricity was an alternative in this case. They did not say that.

Dr ABERLE: Okay. We certainly welcome the reduction in demand for gas. That is something that across Victoria we need to do. We currently use way more gas than any other state, certainly at the household level.

Mr LIMBRICK: They are the biggest consumers of gas.

Dr ABERLE: Yes, that is right—4 petajoules a year or so, I believe—so certainly we are keen to get off gas as quickly as we can as a state. I think the other point, though, does come back to the issue you raised around the lock-in of waste. Establishing a facility of that size that is consuming that much of metropolitan Melbourne's municipal solid waste and having it on a 25 or 30-year payback period is really problematic. Maryvale might have said that right now they have looked at the alternatives and they could not have a renewable alternative or a hydrogen alternative or whatever, but once they build that thing they are going to need to run that and they are going to need to keep burning waste for 25 years to get their money back or to make it a worthwhile investment. It is that kind of lock-in that is concerning. If they had a five-year payback and in five years time they thought, 'Actually, you know what? It's a cheaper, cleaner, smarter alternative for us to be using solar and batteries to create heat to generate this thing', or whatever, or to burn hydrogen that has been produced from renewables—

Mr LIMBRICK: So you are saying they should continue using gas until another technology becomes economically viable?

Dr ABERLE: I am not here to make business decisions on their behalf. It is a complex situation. I do not think there is a brilliant solution on either side at the moment. But that long-term lock-in of the incineration facility is a concern.

Mr ATKINSON: One of the things about some of the other jurisdictions that you talked about, particularly in the European Union, is that they are more contained in terms of product sourcing and usage. In other words a lot of the products that they are using that are reflected in their statistics were actually acquired within the European Union, whereas so many of our products and consumables are imports. It makes it a lot more difficult to go back to foreign jurisdictions under world trade arrangements and tariff arrangements and so forth and actually enforce some of the product responsibility or stewardship. Do you have some observations on that?

Dr ABERLE: A couple of comments. There is certainly a question around the scale of the market that we have. If it is around labelling or encouraging producers to produce more sustainable goods, then the scale of the Victorian market is certainly much smaller than, for example, the European, American or Chinese markets in terms of the extent to which producers are going to change their production methods to accommodate our requirements. I think another point, though, about the extent to which the EU has internally transferred goods is that the motivation for the EU for shifting to a circular economy is actually because they are heavily dependent on importing raw materials from outside of Europe, primarily from Africa. I think I saw a statistic somewhere that was that they spend—this could be wrong; apologies if I have got it wrong—something like $3 billion a day importing raw materials of all kinds into Europe. By moving towards a circular economy, that money actually stays within the European Union and creates more local jobs because rather than paying other countries who are producing raw materials to send stuff over, you basically start producing the raw materials yourself through the circular economy from what is already flowing within the material system. So I am not sure that 100 per cent answers your question, but it is a couple of reflections around your question.

Mr ATKINSON: Okay.

Ms TAYLOR: Just with the alternative bags to plastic and the green bags, that actually are not that green—they are a green colour, but they are going to be with us a long while—the other day I was just saying, 'Well, what about calico, jute, hemp and other alternatives that ultimately should biodegrade at some point in time but should have better endurance?', but somebody said, 'Oh, but more energy to produce them'. But then I was thinking about the whole cycle of the product, the original making of the product and the kind of energy sources that are used in the fabrication of the product—like if there was more hydrogen and renewables in the first place. I am looking at the whole circle, and we have to look at the whole circle. That is why we are in the mess we are now—because we have not looked at the whole circle as a whole across the globe, you know. It is a

global issue; it is not just Australia. So what are your thoughts on that? And if you do not have thoughts, do not worry, but I thought I would just put it out there.

Ms EDWARDS: Well, I do not have specific thoughts on the material of the bag, but I think what you are saying is certainly something we agree with. What we need to do is make these decisions that are looking at the whole life cycle of the product and encourage people to use materials that are going to last in the system for longer and that when they do ultimately break down they are going to do so naturally, not like plastic.

Dr ABERLE: I would just add that for anyone who is manufacturing a product, if you ask them the question, 'What's going to happen to it at the end of its useful life?', if they do not have an answer to that question then there is a problem. You know, if it is a hemp bag that can be thrown in your compost bin at home, is going to biodegrade and is going to become nutrients to grow something else, then that is a pretty good answer to that question, and those are the kinds of products we should be encouraging.

Mr HAYES: I have got two questions. The first one goes to sorting and if the Sustainability Fund should be educating the public about what goes in the four bins—or whatever the number of bins in the system; that has to be consistent. But I am also concerned about all those little wrappers and plastic things that come with round cheeses and soft stuff that you buy at the supermarket. How can we best sort that? I imagine we can make the supermarkets responsible—and they are already doing that with the soft plastic collection that they do—but that material should be sorted into different types of plastic and what can be reused and what cannot be reused. Do you think that it is possible to devise a labelling system that would do that, or how do you envisage making that stream usable too? At the moment it often has difficult to remove labels on it or it is contaminated with sticky food or stuff like that, and you just think, 'I'll throw it into the hard rubbish to go to landfill', but really it should go back to the supermarket. How can we make that chain work better, if you have a view on it?

Ms EDWARDS: There are a number of different ways to intervene, aren't there? Do you want to go?

Dr ABERLE: No, you have got it.

Mr HAYES: Just maybe suggest one that you can think of.

Ms EDWARDS: Well, there is the level at which the people are producing the packaging materials. So encouraging those folks, and through the incentives that we have mentioned in our submission, to use the best, the most recyclable versions of that or the least packaging possible. So there are those incentives. And then there is all the way through to when someone is at home trying to dispose of that packaging, making it easier and clearer for them to do the right thing.

Mr HAYES: Could you label it in some way, or do you think it is a matter of educating people at home how to separate it?

Ms EDWARDS: I think that is a big part of it.

Dr ABERLE: I think to some extent we have that. We have the different number plastic recycling things which obviously determines, depending on which council area you are in, whether something can be recycled or not, but I get that there are a whole bunch of other things that do not fall into that category.

Mr HAYES: That do not have that; that is right.

Dr ABERLE: I am not aware that the technology exists to recycle much of that stuff. It is certainly a problem, and I would love it if the Inquiry could reach a conclusion.

Mr HAYES: Another question is on bin liners. Some people would like to keep the plastic bags so that they can use them as bin liners.

Ms EDWARDS: A personal one—just choosing.

Mr HAYES: It really has just one more use before it goes in the rubbish. Do you see any possibility of using compostable plastics as a bin liner, or are we just creating more problems in the waste stream by advocating for such things?

Dr ABERLE: I find this one very confusing. I was in my local supermarket just last week staring at the wall of bin liners trying to pick the one that I thought was the best option, and it is pretty confusing. There are things that say they are degradable, but I actually interpret that to mean that they just break into tiny bits of plastic.

Mr HAYES: That is right.

Dr ABERLE: Then those tiny bits of plastic end up in waterways, wherever else, which ultimately are going to come back into our bodies. So that is pretty bad, I think. Degradable sounds good but probably is not. I think compostable is a better option. There is also biodegradable. I think there is a real lack of clarity around what these words mean, for most people. It sort of comes back to my point about labelling earlier—that I think having and enforcing some kind of clarity and consistency about what words can be used when and what they mean would be a big step forward. To answer your question, I am not quite sure how compostable bin liners would create—I mean, it probably depends what kind of waste is going into them. I think the compostable bin liners are great for—that is basically what they use for—the FOGO collections.

Mr HAYES: Yes. They assure me they do not break down to microplastics—that is meant to be what 'compostable' implies.

Dr ABERLE: Yes. I guess it then becomes a question of: where does that other household waste go? If nothing in there is going to be recycled, then I would have thought that the presence of a compostable bin liner is not too much of a problem.

Mr HAYES: No.

Dr ABERLE: I do not run a waste recycling facility, so I do not know.

Mr HAYES: Yes. A lot of people just line their recycling bin with them too and put them in there, which is no good at all.

Dr ABERLE: You are not meant to do that.

Dr RATNAM: Just a couple of follow-up questions. I was interested in your opening statement, when you talked about how we had ended up in this situation, which is that the system essentially failed us. So we are looking at quite transformational changes that are needed. If you think about the system that we have at the moment, which has just given rise to what we have, it has been incremental change that we hope will make the situation better. We are hearing very loudly and clearly, particularly today, that we have to go back to the drawing board on things like product stewardship, and how we are generating the waste becomes a really important critical focus. So I think that is the challenge. It is a really big challenge before us.

You were talking about concerns you had about some of the pace of the circular economy work as well and being worried about it. You have outlined what you think the essential elements should be for that circular economy strategy work that is happening at the moment but also being concerned about the timing. So I wanted to ask you about what you think could happen and some solutions there as well.

The other question that I have—I am not sure this is easy to answer—is that in moving to a circular economy, which is the aspiration of so many of us, what do you think it is going to take? Is it going to just take Government saying, 'This is it', and doing it? I am just interested in the broader discussion about what it is going to look like for us to move to a circular economy as soon as possible. We want to get there. I am interested in your thoughts given that you are in this and thinking about it. This is a big system change we are talking about. It is doing everything differently, really. I am interested in your reflections, really, to give us a bit of a sense of what we should be recommending as well.

Ms EDWARDS: This will not answer your whole question, but I was just looking through what the story was in the European Union when they introduced their huge suite of circular economy—I cannot remember what it is called, but the policy package. I think initially they had tried to get it through the EU Parliament as a waste resource recovery type package, and it actually completely failed and it did not get through. They went back to the drawing board and basically put forward a whole lot of the exact same policies but talked about it as a whole-of-economy approach and presented it as a circular economy, and actually had process in there around

engaging industry and actually having these forums to include their voices in how they would actually like to pledge to be involved, and that sort of language. It was a huge success and it is now being implemented. So I think that was just one reflection from someone who was involved in the EU process.

The CHAIR: Two quick questions, two quick answers.

Dr RATNAM: There was the second part of the question about the timing of the circular economy work, but you can come back to it at some point—even afterwards is fine.

Ms TERPSTRA: Just following on from an earlier question about plastic bags, we heard from an earlier witness on another day that where single-use plastic bags were taken out of stores the purchasing of bin liners went up. It actually showed that people were not using those bags for a single use; they were having a secondary use. What would your solution be to that? Would you advocate for putting a higher charge or a tax on bin liners? Wouldn't that just get passed on to the consumer? How do you encourage manufacturers to think about this in different ways? What would your thoughts be on that?

Dr ABERLE: I guess a couple of things, and I will see if I can remember them all. I think one goes to the composition of the bag as well. I mean, if we are going to be having a single-use plastic bag from a supermarket that then is going to get used one more time in a kitchen rubbish bin and then thrown into your wheelie bin, I do not see why that should be made of single-use plastic that is going to be around forever versus making it out of something compostable or biodegradable that will last long enough to take a week's worth of kitchen waste or whatever, and then you are going to throw it out. It gives people the opportunity to re-use something once, but it does not have the same ongoing waste impact. So I guess there is the switching of materials.

I will just use that to make a broader point around I guess some of the circular economy things. I was speaking on a panel about circular economies a couple of months ago, and a bunch of people came up to me afterwards and they said, 'Oh, yeah, I've got this great idea for turning material X into this other thing'. I was like, 'Oh, that's cool. What happens after it has been turned into that thing?', and they were like, 'Oh, well, then it goes into landfill'. It is not really circular; right? You are just kind of making it slightly curved rather than circular. So I think there is a risk that we see this idea of using things once more as a solution to a problem when really using something once more is merely going to delay the onset of the waste problem. I think specifically around the bin liners it is probably around the material choice thing rather than having them or not having them.

Mr LIMBRICK: Dr Aberle, one of the things that is mentioned in your submission is talking about financial disincentives for virgin plastics. I get the concept—you tax something that you want less of—but there are also unintended consequences of that. One of the consequences that we saw in California actually was when they banned plastic bags they actually saw a jump in carbon emissions due to people switching to paper, which is much more carbon intensive—retailers switched to that. How do you propose that we take account of those unintended consequences, or are increased carbon emissions an okay price to pay for reducing plastic use?

Dr ABERLE: I think on the greenhouse gas front we can probably be pretty smart in how we do things so that switching one product for another one does not lead to an increase in greenhouse gas emissions. If we increase the amount of renewables in our grid, then perhaps making the paper bags is not problematic from a greenhouse perspective, but we also heard that there are other alternatives to paper bags. I think Americans have a cultural love of paper bags at grocery stores—I am not quite sure why—but I think we can probably bypass paper as the alternative.

Mr LIMBRICK: But should Government control all of this? Government does not control this whole industry; right? They sort of set frameworks and then innovators and producers try and work within those frameworks. Government is not going to be making micro decisions on 'What's the carbon footprint of this bag versus this bag?'. That is just not going to happen.

Dr ABERLE: No. If only we had that system though. Sorry, what was the other part of your question? The other part of your question I do not think I have responded to.

Mr LIMBRICK: You have got a trade-off; right? So how do we manage that trade-off of the unintended consequences of these government interventions like taxes on virgin materials?

Dr ABERLE: Yes. I guess there are many well-paid bureaucrats who are experts in managing unintended consequences and coming up with policies that are robust across a range of scenarios. I will leave that question to them, if that is all right.

The CHAIR: On that note, did you have a follow-up question?

Dr RATNAM: Yes. You mentioned the timing of the circular economy—the action plan, I think, and the strategies as well. So I just wanted to talk about what those concerns were and if there is anything we can recommend.

Dr ABERLE: It is not so much concerns around the timing; it is more concerns about what the implications of the timing might be, if that is an appropriate distinction.

Dr RATNAM: Right, yes.

Dr ABERLE: I understand that originally the circular economy action plan was going to be coming out—middle of 2020 I think was the first announcement—and then subsequently it has been announced that it is going to come out by the end of this year. So the upside of that is that we will be seeing circular economy action plan things happening much sooner—that is great. But just acknowledging the complexity of developing a circular economy: by taking six months off the development time frame, have we closed the door on more transformational opportunities that we would have had if we had let the process run a bit longer? I can see upsides and downsides.

Dr RATNAM: There is potentially something for us to be—

The CHAIR: Have a continuous improvement provision.

Dr ABERLE: That is exactly right.

Dr RATNAM: So it is something that potentially we should be cautious about in terms of thinking about it as a staged process as well. So I guess it is a good caution for us when that comes out because we want it to happen as soon as possible, and we welcome the Government doing that work. But also I think it is a good caution as well to make sure that it is not the end—it is the beginning of the next stage—and not to give up on the transformation.

Dr ABERLE: I think that is right. I cannot remember who asked the question earlier around: how do we get on the path to a circular economy? It is not a one-shot deal? It is not: here it is, that is how we get to a circular economy. It will be a process of learning and refining, and as technology changes as well, more options will be opened up.

Mr HAYES: We have got to be careful not to rush the process too much, I suppose. There are a lot of councils that want to jump into the waste-to-energy thing right away because they see it as an immediate solution.

Dr ABERLE: Which is precisely the concern, and originally there was a discussion paper. I believe it was going to get released around waste to energy, but it was shelved by the department in order to put out the circular economy discussion paper, which is something that we definitely support, because otherwise it was kind of putting the cart before the horse. It is like: let us figure out what we are going to do with the circular economy before we start thinking about if we should be burning rubbish. That should come after you have figured out how to get as much as possible out of the waste stream.

The CHAIR: On that note, thank you both for your time. We really appreciate it. A copy of the transcript will be sent to you, so if there are any corrections to be made, please feel free. Thank you again.

Dr ABERLE: Thanks very much.

Witnesses withdrew.