TRANSCRIPT

LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into recycling and waste management

Melbourne—Friday, 10 May 2019

MEMBERS

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

PARTICIPATING MEMBERS

Ms Georgie Crozier Mr David Davis

WITNESSES

Mr Richard Macchiesi, General Manager Insights and Innovation, Visy; and

Ms Alana Morgan, Corporate Counsel, Visy.

The CHAIR: I declare open the Environment and Planning Standing Committee public hearing. Again I remind everyone that mobile phones should be now turned to silent, and I also extend my welcome to the public who are in the gallery today. The committee is hearing evidence today in relation to the inquiry into recycling and waste management, and the evidence is being recorded. I welcome our witnesses for this session: Ms Morgan and Mr Macchiesi from Visy. Thank you very much for your time. All evidence taken in this hearing is protected by parliamentary privilege as provided by the Constitution Act 1975 and is further subject to the provisions of the Legislative Council standing orders. Therefore the information you give today is protected by law. However, any comments you make or repeat outside this hearing may not be protected. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament. You will be provided with a proof version of the transcript in the next few days.

We have allowed 5 to 10 minutes for you to give us an opening statement. After that we will go to questions from the committee. Who would like to go first? Again, welcome.

Ms MORGAN: Thank you.

Mr MACCHIESI: Thank you. By introduction, Richard Macchiesi. I am general manager, insights and innovation at Visy and work across a broad range of the businesses, so I understand obviously the technology elements of the business but sort of also the ins and outs of each of the businesses and their particular issues. Alana Morgan, from Visy corporate, works closely with the recycling business day to day and has a number of insights and knowledge around the comings and goings of the business itself.

We have not prepared a specific opening statement, but needless to say that Visy, being a large packaging and recycling business, understands both what the consumer does, how they interact with packages, and then also the recycling element of that, so how it is collected. But we also understand that there is a value-adding, which our business has done for probably about 30 years. The circular economy is not a new term to us. It is a term that has been embedded and ingrained in our business model for a number of years, since Richard Pratt started that business a long time ago. We believe that we are well-equipped in understanding how it works and look forward to your questions.

The CHAIR: Thank you. I will kick off the first question. Perhaps you can give us an overview about the various operations Visy operate in relation to recycling paper, cardboard, plastic, glass, metal. I know you have got a glass operation in Laverton, for example. You have got a mountain of glass ready to be processed. So if you give us a bit of overview as a company about these businesses and how you get the product in and what you do with it. I am not sure whether you are going to be talking today about the residual waste. You have got a waste energy plant as well?

Mr MACCHIESI: We do.

The CHAIR: So I am not sure whether we will focus on that today or maybe come back to it another day. Could you give us a brief overview about these sort of facilities and what you do?

Mr MACCHIESI: Sure. The Visy business is structured fundamentally as a closed-loop business. We obviously have a range of businesses that stretch from the plastics and primary business, as we call it—so plastics, liquid carton board, food plastics, aluminium can and steel can, as our primary businesses; and then into our secondary businesses, as we call them—

The CHAIR: When you say primary businesses, are you—

Mr MACCHIESI: Primary packaging, so just the initial pack that—

The CHAIR: So you are making product, a sort of finished product? That is what you are talking about?

Mr MACCHIESI: Yes, we are making a finished product of those. And then there is our fibre packaging, which is our box plants, which have a range of different offerings, right through from a standard cardboard box all the way through to point of sale, that utilise our own paper in that mix. There are then the paper mills themselves. Again there are a range of paper mills that are predominantly recycled paper mills, so they are feeding from the recycled paper that comes via the kerbside collection stream and our recycling business, and we have one kraft mill—or there are two mills but one kraft location—in New South Wales, being Tumut. That is our only kraft mill here in Australia. That footprint also extends over to New Zealand, but not on the paper side.

Our recycling business is predicated around kerbside collection material and, dependent on council contracts and who we have a contract with at that particular time, we would either collect the material or it is subcontracted out to other companies to be able to collect that material. It is then aggregated either at a MRF or at a transfer station, and if at a transfer station, it is then sent through ultimately to the MRF and recycled. There is equipment and technology set up in those particular MRFs to be able to do that. Those MRFs are located obviously in major capital cities, being on the east coast predominantly, and in South Australia as well, not WA.

Mr HAYES: Excuse me, what is a MRF?

Mr MACCHIESI: Sorry, a material recycling facility.

Ms MORGAN: A material recovery facility.

Mr MACCHIESI: A material recovery facility, sorry.

Ms MORGAN: That is basically where the kerbside recyclables will go after collection and then they will be sorted into their separate streams to then be sent on for recycling and remanufacturing or other re-use.

Mr MACCHIESI: Visy has basically set up that business, and the fibre business is the predominant part of the business to which we collect either from a kerbside collection, or there is also a commercial and industrial collection piece of that as well. It is OCC, which is old carton board or corrugated cartons, and they are then moved through into our paper business, and they are ultimately pulped and then turned back into recycled paper, which then feeds into the corrugated box plants, which ultimately make the boxes as well.

The CHAIR: Out of the recycled stuff you collect from the kerbside and various other sources, what percentage of that is used in your internal manufacturing businesses? What percentage is sold to, say, other parties and what percentage is sent to landfill? Have you got any breakdown? If you do not have it, that is fine; you can take that on notice and come back with further information.

Mr MACCHIESI: I think we will take it on notice, the exact percentages. However—

The CHAIR: Maybe in generic terms, then.

Mr MACCHIESI: Obviously with the technology that exists, with our paper business and ultimately into the fibre business or recycling into paper, we can currently use a majority of the clean stream ourselves, and where traditionally there was a market for mixed paper, that was sent overseas on a percentage. In some states, relative to the technology, we utilise that. But it varies relative to the technology that we have in place at our paper mills, given the age of those and then also the ability to be able to process what is becoming more and more a contaminated stream from a recycled paper perspective specifically.

From a plastics perspective, in New South Wales particularly we have a recycled food-grade plastic plant, and that plant will consume as much clean PET and HDPE as possible, and that is then reprocessed into food-grade plastic, which is reintroduced into water bottles and/or milk bottles as well. It is the only food-grade recycled plastic plant in Australia, turning it back into resin specifically—so that whole process.

In terms of aluminium, we sell the aluminium. There is a viable open market for the aluminium. We also have a can business that consumes aluminium, so ultimately we have that ability to be able to buy back aluminium that

contains recycled content, and equally with steel as well. So steel is sold. So those two markets are obviously still viable. It is a relatively clean stream and they have not been affected as of recent times.

Dr RATNAM: Thanks very much for coming and presenting to us today. We have previously heard from Sustainability Victoria, and we were asking them about the time line of the China sword policy and any forewarnings we had, for the industry and government to prepare and mitigate what ended up occurring. They did mention that one of the initial meetings that they had once the China sword policy was announced was with Visy, and Visy signalling that it might not be able to take the recycling that it was then taking. That seemed to have not eventuated. SKM seemed to be the one to get into trouble with their stockpiling. How were you able to manage that—to keep taking the recycling, given the China sword policy, and what have been the implications of the China sword policy on your business?

Mr MACCHIESI: So it may be not as simple as that because there is a capacity constraint. So as a business we have a finite capacity to which you can fill. So I think in the case where the China sword—and we would reiterate it is not just China; it is now broader South-East Asia included.

Dr RATNAM: Yes, India et cetera. That is right.

Mr MACCHIESI: It is a market, really. This is not just China. China was maybe the catalyst, which other countries have now followed. China was, as we say, the catalyst. In that case we have a certain amount of capacity to which we can continue to take material, but that is to the point now of almost being absorbed. It is not an infinite amount, because you can only produce so much or process so much on a daily basis, given the capacity of the size of the yard, the amount of trucks that arrive, the equipment that you have and the throughput. So it is a finite thing.

Where that came to push, I think, with other industry players is that it is not necessarily the China sword. It is in the sense that it did not affect their operations; it was more the ability to remove the product from their site. Because we are a large consumer of the product ourselves, that still enabled us to continue, but we have seen the same impacts as other industry players as well.

Dr RATNAM: So, to clarify, you were able to use more of that mixed paper and plastic that was binned—

Mr MACCHIESI: No.

Dr RATNAM: No, you were not able to consume it?

Mr MACCHIESI: No, if the volume was higher, generally you can process more, but we saw it as a bit of responsibility too. If there was capacity there to be able to assist some councils who were in trouble of being able to process. Where possible, obviously, it has got to make sense from a financial perspective and also from a business perspective, but we withstood it.

Dr RATNAM: So do you think the market has stabilised enough since that shock that we saw a couple of months ago, with SKM not able to take it? What is the situation from your perspective at the moment? Has enough been done? Should more be being done, and who should be doing that work?

Mr MACCHIESI: Everybody should be doing the work. So I think where we understand that the market is today, by no means do we believe it is solved. So it is where you see that a number of geographies or jurisdictions around the world have started to take control of their own waste. That is what we feel Victoria has the opportunity to do. The shift that we have seen is a market shift. So could we have foreseen this shift coming? There were probably indications around it; you see the increasing middle class in China are demanding China do it, not so much from a pure financial perspective, but it is the environmental perspective. It is their demands.

So from a Victorian perspective I think there are some environmental demands that we need to take into consideration and, as a result of that, take control of the destiny of our product. So in the case of—and we can speak obviously quite well—even paper, which probably has not been in the media as much as the plastic, but there is a very small investment and technology gap to be able to solve a large amount of this problem.

I think that, traditionally, governments have focused particularly on bespoke or unique-type technologies. If you broke down the hierarchy of the bin, the bin by volume is 50 per cent paper—and these are rough numbers—30 per cent glass, about 7 per cent plastic and then a balance from there. And say 9 per cent 'other', and 'other' is also steel and aluminium, which are very highly valuable commodities. So we have as part of our submission as well that there was an element there that a small investment, we say 'co-investment', and we believe this sits with a lot of manufacturers like Visy, we can actually consume up to 80, nearly 90 per cent of the bin, just talking kerbside as a problem specifically, in the very short term. So it is a technology gap and what we consider to be a small investment gap, but appetite for government to be able to invest in.

The CHAIR: Now, if I can go to the next question, and it is a quick question from me: are you planning to put a submission to the committee?

Ms MORGAN: Yes.

The CHAIR: We would like you to, and maybe I will come back to you at the end about that.

Ms CROZIER: Thank you both for appearing before the committee this afternoon—very interesting. I have a number of questions on a couple of answers you have provided, but we will not go into all of those details in relation to all of the issues I wanted to raise, in the interests of time. But you talked about a number of geographies that are being affected or doing it more effectively in terms of managing this issue. Could you explain to the committee which of those jurisdictions are actually doing, you know, excellent work in this space that perhaps Victoria could look to, with your experience? And the other thing I wanted to ask, in relation to your role as general manager for insights and innovation, you went to that point about technology, so where are we at with the technology at present? Is Visy leading the way or are you looking to other companies around the world to also bring that on board to improve all of these environmental impacts?

Mr MACCHIESI: I will probably answer them in reverse. So the technology side of things—I think, you know, openly, if you look at an Australian business, not only are you always updating your equipment but as market shifts you do need to do that. There is equipment available today to be able to process a lot of the material, being the mainstream materials, paper, glass, plastic, and plastic is probably the best representation of that just in New South Wales, where it is very specific as to how it is reprocessed and put back in. Maybe I could make reference to our US business that is basically consuming waste, and it is different technology because it is new technology that is going in as we are a growing business in the US and existing. So there is technology around the world—they are called drum pulpers—which allows you to process not only a clean stream of cardboard, which our business has traditionally been set up with because there was a market for mixed paper post that. But what we now have as mixed paper is no longer being taken by overseas markets. We now have that problem to be able to process. They will still take the clean product, which we consumed previously as well. So we need a step change, and we have identified a technology to be able to step-change that. We believe that that is 50 per cent of Victoria's bin problem to be solved with one piece of technology.

In terms of—

Ms CROZIER: How far away is that?

Mr MACCHIESI: It is relative to a few submissions that we have made and our business as well. So our business is ready to move.

Ms CROZIER: Submissions to?

Mr MACCHIESI: Government.

Ms CROZIER: For funding?

Mr MACCHIESI: Yes. So if you take that as paper—

Ms CROZIER: And could I just ask on that point: when were those submissions made and how long have you been waiting? Because if you are saying that that could have a significant impact, is there some delay that has been occurring?

Mr MACCHIESI: I just think it is a standard bureaucratic process perhaps. I cannot comment on the speed. But we submitted in October last year.

Ms CROZIER: October last year.

Mr MACCHIESI: Yes.

Ms CROZIER: Thank you.

Ms MORGAN: We have touched on it again, as a case study and the solution that we will provide to this, and obviously we would be happy to provide that more information.

Ms CROZIER: Just on the geography that—

Mr MACCHIESI: To touch on the US, and look, we might not necessarily agree with it but as people who have taken responsibility for the waste, and we point to the Nordic states. Now, incineration is not a broadly accepted environmental solution. However, I think we refer to it purely on the basis that they took control of what the problem was that sat in front of them, and for us it is a lot about aggregation. Geography in Australia is hard to combat. Even in Victoria, you can talk about regional and metro areas. So every time you add cost or value to waste, it reduces its value, so therefore market is after that. But I suppose to oversimplify it, and in fear of doing that, the oversimplification of it is there are markets today that exist in Victoria and also in other areas, other states, that can consume a majority of the waste. As I said, it is just the technology gap. So our sorting of that—we stop from a recycling perspective with a number of the materials, but obviously plastics in New South Wales and fibre nationally is one that we identify that we can readily consume.

Ms TERPSTRA: You are possibly aware that the state government has a Sustainability Fund and a Resource Recovery Infrastructure Fund, or we have had similar iterations of those sorts of funds in the past. So can you just outline in broad terms whether you have sought to access those funds in the past through grant schemes and the like, and if you have and if that is something you would do in the future to perhaps look at innovation to assist in the recycling of materials? Is that something your business would consider?

Mr MACCHIESI: One hundred percent, yes, sure, and we have in the past on different levels, depending. But I suppose where we have not had a market shift, such as this, the size of the investment probably has not resonated, so it has not had as much visibility. Even within our own business, divisionally things might operate individually to the bigger business, as you can understand in a business of our size.

Ms TERPSTRA: Sure. And also would you support the introduction of a government procurement policy that mandates the use of recycled materials?

Mr MACCHIESI: Of course.

Ms TERPSTRA: You would? Thank you, great. And one final question: what is the effect of regulation from the EPA and other government agencies on your business? Do you think that regulation is a barrier to economic viability in the recycling industry?

Mr MACCHIESI: I would say no, purely on the basis that we respect what the EPA requires and we satisfy those regulations today and we operate as a viable recycling business. So—

Ms TERPSTRA: And you are able to operate productively and efficiently within that framework?

Mr MACCHIESI: Of course, yes.

Ms MORGAN: But I think the only exception we would add to that, and this kind of links into some of the pools of funds that are available, is the impact of landfill levies on remanufacturers and the impact that has for businesses that are trying to use kerbside recyclables, which are a bit contaminated when householders incorrectly put materials into the bin. Even though it does get sorted at a MRF, some of it does ultimately flow through to remanufacturers, and that is another competitive disadvantage when you are trying to use recycled feedstock compared to your competitor who is using virgin material, which is clean, and they are not going to have the landfills associated with it.

Mr HAYES: Just to clarify, you do not run the MRFs, do you?

Mr MACCHIESI: Yes, we do.

Mr HAYES: So you run the MRFs?

Mr MACCHIESI: Yes.

Mr HAYES: So you sort all the initial material out?

Mr MACCHIESI: Yes.

Mr HAYES: And you say most of it can be recycled if there was the appropriate investment?

Mr MACCHIESI: Well, it is the appropriate investment, but not only that, because you can clean a product and clean a stream ad infinitum perhaps. So let us say we spend as much money as we can at MRF level; we actually do not think that the recycling or MRFs themselves are as much the problem as the ability to remove the product once it has passed through the MRF. It is the market afterwards. It is the pull-through.

Mr HAYES: So it is not just the investment in the machinery that does that?

Mr MACCHIESI: In fact the investment to solve the problem is in our paper mills, not at the MRF. So we do not see the MRF as the problem; we see the ability to pull through as the problem.

Mr HAYES: Right. And you are talking about initially—just with paper, you say it is only a small investment required, is that so?

Mr MACCHIESI: Give me the relativity of 'small', but in the context of the Victorian government and Visy, I do not see it as significant.

Mr HAYES: Could you give us a ballpark idea of what sort of funding?

Dr RATNAM: What sort of amount are you asking for?

Mr MACCHIESI: It would be circa \$50 million, of which matched funding from both sides.

Mr HAYES: Okay, and with other things like glass and metals and things like this, are there similar amounts of money required just to process it? Not thinking about the market.

Mr MACCHIESI: I could not quantify—we do not make glass. The obvious access for glass is to go back into bottles and be remanufactured back into bottles. There are other large manufacturers in the Australian market. I am not aware of their front-end and/or back-end technology, but through experience just through my role, there is technology that is able to clean a dirtier grade of glass—because they are all different grades as you refine—to be able to get more recycled content into bottles.

Mr HAYES: But do they buy glass from you at the moment?

Mr MACCHIESI: They do. But only a cleaner stream as opposed to something that is contaminated.

Mr HAYES: So a small amount then, really.

Mr MACCHIESI: It is not insignificant but yes.

The CHAIR: There is a small percentage they can use in making glass bottles, I think. My understanding is there is a bit of a restriction around how much recycled content can be used in the making of bottles and certain products.

Mr MACCHIESI: And that is where the technology comes into play. So their bottle-blowing ability, their processing at the front end ability—

So it is the same as us: if we were going to invest at the front end of feeding into the paper mill, we would have an investment there. They would have an investment at the front end of their glass facility to be able to do that.

Mr HAYES: But both of them require an expanded market, or all of them really require an expanded market for the product to make it worthwhile?

Mr MACCHIESI: I am unaware of the actual flows relative to the size of their particular plants, given where they are from a geographical perspective.

Mr HAYES: But government could help by mandating certain requirements in the remanufacture of these materials?

Mr MACCHIESI: Of course.

Ms MORGAN: And I think that will be necessary anyway for some materials—probably a smaller proportion, which is why we would suggest that the investment is focused on the larger component of the bin. But there will be some materials, you know, the bit that you cannot clean up, and the glass fines is an example as well where mandating or at least having a policy of encouraging use of recycled content will be necessary to actually start to grow the market and encourage the investment from businesses as well.

Ms TAYLOR: There are two things: do you think that a national EPR would be helpful?

Mr MACCHIESI: EPR?

Ms TAYLOR: Extended producer response. Basically it is mandating that certain levels of recycled product are in products, so it drives the demand essentially. It is an incentive for people to use better products or better packaging in the long run.

Dr RATNAM: Producers.

Ms TAYLOR: Yes, companies.

Mr MACCHIESI: Yes, I think we would be supportive—

Ms TAYLOR: I am seeing how it might help.

Mr MACCHIESI: Sorry?

Ms TAYLOR: I am thinking about what market drivers there are to help overall reduce waste et cetera. That is where I am coming from.

Mr MACCHIESI: You can take that from an umbrella level. I just think that obviously consumer awareness to be able to—they need to be able to ultimately value it and pull it through. But if it is mandated by an EPR, for example, I think Visy's view would be that we are currently using it, so it is not an impost to us.

Ms TAYLOR: Yes, right.

Mr MACCHIESI: But I think there are certain ways that both Alana and I have experienced—you know, mandating certain things can have financial consequences. Ultimately I think where we sit today, given the balance of the flow of material and the technology, it is actually more expensive to include recycled content. In fact, it is more expensive for us to be able to produce recycled plastic than it is for the benchmark of virgin plastic. And that is purely based on markets and commodities and where we have been up until this time.

Ms TAYLOR: And the other thing is that, just I suppose playing devil's advocate because I used to work in marketing and private enterprise, to a certain degree with marketing you have to create the need. Obviously there is plenty of consumer demand but you have to drive that need. What do you see your role as a company is in terms of driving that from a marketing perspective?

Mr MACCHIESI: Fortunately enough part of my group also looks after engagement specifically with large, fast-moving consumer goods companies, who ultimately produce these products. An interesting fact that we learned from one of them was that consumers perceive that milk bottles return back into milk bottles. In fact that is not the case, but that was the perception. So no-one has allayed that perception until recently.

But I think we consistently drive that demand purely through what we show to our customers in terms of our packaging. We get the ability to be able to influence marketers in commercial enterprise to be able to encourage them to include this. But up until recently, probably through my experience, the call-out of recycled content has not been amplified on a pack, for example. So as a consumer walks down the supermarket aisle, they might not necessarily see a product or value that, should the product be a little bit more expensive. Because it comes down to the hip pocket sometimes when you are in the supermarket, not necessarily what the moral stance is. Some people very much so do, but a lot of people would just look at the dollar price, and whether it has recycled content or not probably does not matter to most consumers. I am not saying everybody.

Ms TAYLOR: So maybe education is part of that too, I do not know. It is probably many levels.

Mr LIMBRICK: With regard to inputs into recycling processes—so energy is obviously a big input—how do the fluctuations in energy prices affect the economics of your recycling operations?

Mr MACCHIESI: As a business Visy has been significantly impacted by increased energy prices. We are a very large consumer at a paper mill level and obviously into the recycling business, and we take steps to be able to mitigate that at different points along that process. So the input of energy is always relative in your basket of costs, so as it goes up your basket of costs goes up. It is a direct result. I think previously someone touched on the waste-to-energy piece, and that is where Visy has invested significantly in that.

People would say it is a cheap way of producing energy. It is actually quite a balancing act to be able to get the right feedstock to make a machine like that work, and in fact it is not just a matter of feeding wood in or a bit of paper or a bit of plastic or what have you. It is a real balancing act to then be able to generate some energy. But in the scheme of things our recycling plants are large energy users but they are not the main part. Paper mills would be the main consumer in our business.

Mr LIMBRICK: One other, if I may. A lot of the talk around China's National Sword policy is around contaminant levels in materials being sent. Are those sorts of contaminant levels similar to what you get in your product, in your stocks that you are getting from kerbside recycling—like it is the same thing; right?

Mr MACCHIESI: It is a direct correlation, yes. So what goes into the bin, then processed, comes out. So the higher the contamination, the higher the contamination at the end.

Mr LIMBRICK: So these things that were getting sent to China, they were the same sorts of contaminant levels that you were receiving as well, or is that not being accepted by your company?

Mr MACCHIESI: We accept the material because it comes via kerbside. We do not audit all the bins. It would be great if we could, but there have been a few factors that have started to impact the mix of the bin. When recycling was probably first pioneered—and we feel that our business was a pioneer in the recycling industry—the bin was probably a little bit more simplified back then as a co-mingled bin. With the introduction of a number of new packaging formats—films and different things like that—the contamination level has changed or the mix has changed in terms of what is in the bin as well. So it has been an impact ultimately on us, and that goes back to the consumer or the household and knowing which bin to place which product in, what is recyclable and what is not recyclable.

Mr LIMBRICK: And those contaminants go to landfill, do they?

Mr MACCHIESI: In some cases, yes.

Ms CROZIER: Does there need to be more education on that aspect that Mr Limbrick raised in relation to the contaminants and that you just spoke of?

Mr MACCHIESI: It depends how you classify the contaminant, I think, because anything in its clean stream is probably recyclable, but just to give you an example, the amount of glass that is impregnated in our paper. So if you put your cardboard box from your vegetable shopping in the bin, then you throw three wine bottles on top, for example, that goes into the truck, which as a co-mingle, the bottles can break. As those bottles break, then that glass gets impregnated into the paper because of pressure and compacting, and it gets to the MRF, then it is swished around and goes through the process, and sometimes shards of glass just cannot be removed from the cardboard, so contamination levels go up. In some cases the impact of different schemes that different states have put in place, we as the recycler suffer the impact. We procure the product, but then if the contamination level is higher we are directly impacted by that because we cannot recycle it, therefore we have no other avenue to send it. But wherever possible we use the maximum amounts up.

Ms MORGAN: I think education is certainly important, and there is still some more work to do in terms of educating consumers—even just the basics of what to put in the bin and what not to put in the bin. But just picking up on the China point around the contamination level, that alone is not going to solve the issue, addressing it at the consumer level. There still needs to be the investment to close the loop and create the circular economy here.

The CHAIR: Looks like we are going to have more bins.

Mr HAYES: Just focusing on that contamination level, can you think of a better system for sorting at the household level? I hear in Japan they have an enormous number of bins that people use.

Mr MACCHIESI: In Switzerland they audit the bin.

Mr HAYES: I imagine it would be hard to get that to go with our public, but can you think of some simple changes that could be made to the collection system that would help clean the product or presort it?

Ms MORGAN: We could probably take that on notice and give you some more information about it. The system we have today developed because of the convenience for consumers where they can put everything into the bin, and we are still seeing challenges with that, and also there is obviously an added cost for recyclers as well with collecting multiple bins and the equipment in trucks that you need to be able to do that on multiple collection runs. So there are a few logistics that you would need to take into account, but I think that is a good question to take on notice.

Mr MACCHIESI: Yes, it is not a simple solution. There is a balance of economics within that—to Alana's point—that need to be considered.

Mr HAYES: Yes, and just as a suggestion, I do not know if you could pick up glass one fortnight, and then maybe a fortnight or a month later pick up something else. I do not know. It would be complicated, and it might be hard to get people to do it, but if there was a simple way of doing it—

Mr MACCHIESI: I think if there was a simple way, I would maybe suggest it might have come, but I think you have got to look at the whole supply chain because, as we talked about before, the impact of a change is obviously the cost effect that has a flow-on to the cost of the materials.

Mr HAYES: It costs money.

Mr MACCHIESI: So where that goes ultimately into a pack, that may have an effect on there.

The CHAIR: We will take one last question.

Dr RATNAM: Just to clarify, in terms of your model it sounds like you will take kerbside recycling and you will do some sorting and processing, cleaning some of it up. Some of it you use in the production of materials that you produce locally—so materials that have recycled content. Do you have a kind of standard amount of recycled content in those materials, or it varies from product to product?

Mr MACCHIESI: It is the technical ability to be able to include it. We have up to 100 per cent—

Dr RATNAM: Some materials, okay.

Mr MACCHIESI: recycled content in our cardboard—I say 'up to'. In the plastics case, from a PET perspective you can have 100 per cent PET included relative to the technical performance of the product, being water or milk or whatever it might be, and in the case of HDPE up to 50 per cent.

Dr RATNAM: You try to get the most content, but it depends on the technology.

Mr MACCHIESI: As technically possible.

Dr RATNAM: So some of it gets produced back into materials, which is great, for more use—continued use—and you sell some recycling overseas as well. Does some of it go overseas as well?

Ms MORGAN: And to other organisations locally.

Dr RATNAM: Okay, so there is a domestic market for it as well. It sounds like procurement and some stronger procurement requirements locally would help that supply chain—the pull-through as you talk about. That is definitely becoming a common theme. Lots of circular economy proponents are saying that is one of the biggest blockages at the moment—we actually have to have the demand, and then your businesses can actually flourish. You can make investments in it because you have got a demand for it.

Mr MACCHIESI: Correct.

Dr RATNAM: But in terms of the recycling, you export overseas—and I just want to ask whether you know a little bit about this—and we are hearing that we are sending recycling to developing countries such as Malaysia, Indonesia, Vietnam and India often with contamination rates of 8 to 10 per cent, and this contaminated and low-grade recycling material is then separated from better quality recycling material overseas, but some of it is illegally burnt and dumped in soils and waterways in those countries. Do you have much information that where you are sending your recycling to is not doing that, or how do you monitor that to make sure that that recycling is not then getting illegally burnt or dumped in waterways?

The CHAIR: Can I ask you to take that on notice, because we are running out of time. I think it is a great question, so you need to do a bit of research on that and give us an answer. There will be some more questions, I think, and Dr Ratnam will be able to forward those to the committee.

Mr MACCHIESI: Sure.

The CHAIR: Also can I encourage you to put in a submission. We have extended the deadline of submission from 10 May to the end of May.

Mr MACCHIESI: Okay.

Ms MORGAN: Excellent.

The CHAIR: So it would be excellent if Visy, because you are one of the big players in the industry is able to tell us the story about your various businesses, what you do with the product, what you do with the residual product, what sort of innovations you might be looking at exploring and how we can address the current issue. I do apologise because the next witnesses are here for 2.15, but on behalf of the committee, thank you very much for your time.

Mr MACCHIESI: Thank you.

Witnesses withdrew.