Standing Committee on Environment and Sustainable Development

Monday, April 1, 2019

The Chair (Mr. John Aldag (Cloverdale—Langley City, Lib.)): Good afternoon everybody, and welcome.

To our governmental officials, thank you for being here today. Apologies for the late start.

We're going to go with the departmental officials. We'll have the opening statement for up to 10 minutes, and then we'll get into our questioning.

We have an outside witness who is expecting to join us at 4:30 by telephone. That won't give us a lot of time, so we probably won't go the full hour with the departmental officials. We'll move into our second panel with our telephone witness probably at 20 to five or a quarter to five, somewhere in that range. It's all a bit abbreviated today, but that's the kind of day we're having here on the Hill.

Welcome to Monsieur Martel and Monsieur Robillard.

With that, who from the department is going to be making opening comments?

Ms. Helen Ryan (Associate Assistant Deputy Minister, Environmental Protection Branch, Department of the Environment): I will.

The Chair: Okay. If you would like to start, please go ahead.

Then, I assume we'll direct questions to all of the departmental officials at the table, many of whom we've met before. Nancy, welcome back.

Ms. Helen Ryan, it's over to you.

Ms. Helen Ryan: Good afternoon. My name is Helen Ryan, and I'm the Associate Assistant Deputy Minister of the Environmental Protection Branch at Environment and Climate Change Canada.

I am joined today by my colleagues Nancy Hamzawi, Assistant Deputy Minister of the Science and Technology Branch, Jacinthe Seguin and Dany Drouin.

Thank you for the opportunity to speak with you today and for your interest in the federal government's work on plastics.

I'd like to begin by providing some context on plastic waste, including our international commitments, the domestic strategy on plastic waste, and waste management in Canada.

Plastics are present in every part of the economy and the lives of Canadians, due to their low cost, durability and high performance. It's really changed a lot of the ways we live in the world. They're especially prevalent in materials and products used in consumer goods, the health sector, the automotive sector, for construction, the textile sector and a myriad of others.

Plastics have caught the world's attention. Plastic pollution is pervasive. It collects on shorelines, in waterways and sediments; it entangles or is ingested by fish, birds and other species, and is found in our food. Plastics of various types and sizes, from macroplastics to microplastics, are found in populated regions and the most remote areas of Canada and the world.

Globally, an average of 8 million tonnes of plastic waste are entering the oceans from land every year. The estimated value of this material leaving the economy as waste is in the billions of dollars. Plastic waste is an important issue affecting ecosystems and economies around the world.

There's considerable momentum internationally to take action on marine litter and plastic waste. Last year, Canada championed the development of the ocean plastics charter during our G7 presidency. The charter contains commitments and concrete targets with respect to recycling, reuse and recovering of plastics, with the goal of stopping the flow of plastics into the environment.

These targets include working with industry towards 100% reusable, recyclable and recoverable plastics by 2030; increasing the recycled content by at least 50% in plastic products, where applicable, by 2030; and working with other orders of government to recycle and reuse at least 55% of plastic packaging by 2030 and recover 100% of all plastics by 2040.

Achieving this targets will keep valuable plastics in the economy —this is what we refer to as the circular economy. To date, 18 governments around the world and 54 organizations have signed on to the charter.
Canada also announced funding of $100 million last year to support developing countries improving their solid waste management systems, for example. We also urged our G7 partners to do the same, as better systems will go a long way to solving the global marine litter problem.

[Translation]

In Canada, the management of plastic waste is a shared responsibility. Provincial and territorial governments manage, for example, the operation of landfill sites and recycling facilities, and their funding and fee structures.

Municipalities generally manage the recycling and composting programs for households, establish litter by-laws and educate citizens on waste reduction. Industry is increasingly playing a role in funding and operating recycling programs as part of producer responsibility programs.

[Translation]

The federal government plays a role through the control of transboundary movements of hazardous wastes, and by preventing toxic substances from entering the environment.

[English]

My department is an active member of the Canadian Council of Ministers of the Environment, which is our main forum for collaborating with provinces and territories on issues related to plastic waste. For example, we played a leading role in the development of the Canada-wide action plan on extended producer responsibility, adopted by CCME ministers in 2009. They committed to developing the framework for legislation and promoting a harmonized approach to EPR programs and policies across Canada.

[Translation]

Last November, Minister McKenna and her provincial and territorial counterparts approved in principle the Canada-wide strategy on zero plastic waste, and also agreed to work collectively toward a common overall waste reduction goal.

Work is currently underway on the development of an action plan on zero plastic waste, which will include measures to address five priority areas in the strategy: product design, single-use plastics, collection systems, markets, and recycling capacity.

Environment and Climate Change Canada is also conducting research, collaborating with other federal departments and engaging with stakeholders and other levels of government to support the move to a circular economy approach to plastics. Recently, my department commissioned a comprehensive economic study of the plastics sector in Canada by Deloitte.

[English]

The Deloitte study documents that plastics represented a $35-billion industry in 2017 in Canada. That's for the production, manufacturing and recycling activities. They estimated that in 2016 about 86% of plastic ended up in landfills; 4% was used as fuel or energy, and 1% was lost to the environment. Only 9% was recycled. This represents a lost value of $7.8 billion in 2016. This loss is projected to grow to $11 billion in 2030 if our recycling and recovery rates remain at their current levels.

Over 200 businesses in Canada are involved in plastics recycling, 80 of which make up the core of our recycling sector.

[Translation]

To reach our goals of diverting 55% of plastic packaging from landfills by 2030, and 100% of all plastic waste by 2040, the competitive recycling sector needs the right conditions to expand and diversify.

If we work to increase our diversion rate of plastics to 90% from 9%, we could generate 40,000 new jobs and reduce up to 2 megatonnes of greenhouse gas emissions.

[English]

A I mentioned previously, last November environment ministers launched the Canada-wide strategy on zero plastic waste. The strategy recognizes the utility and value of plastics in our society and proposes a circular economy approach to reach zero plastic waste and reduce plastic pollution.

The three broad areas of work outlined in the strategy are to prevent plastic waste, to increase its collection and to improve the recovery of plastics back into the economy.

The strategy identifies 10 result areas that require action along the entire life cycle of plastics, and in enabling activities. These areas are product design, single-use plastics, collection systems, markets, recycling capacity, consumer awareness, aquatic activities, research and monitoring, cleanup and global action.

[Translation]

In February, the CCME organized a multi-stakeholder workshop where over 130 participants from across the value chain discussed and debated solutions for the first five results areas of the strategy. The first phase of the action plan will be submitted to environment ministers in June.

Science and research are integral to success. We need to understand the issue and the potential risks. Science and research are needed to make evidence-based policy decisions, to support action, and to help drive innovation.

[English]

Experts in our department and across the federal government are working to advance the understanding of plastics in the environment, including their sources, fate and effects.
We recently hosted science workshops focused on identifying priorities for scientific research. Priorities and gaps identified covered the entire life cycle of plastics and included understanding the impacts of plastics on wildlife and human health; standardizing how we monitor and characterize the sources, pathways and fate of plastics in the environment; developing new materials and technologies to increase the recyclability and compostability of plastics; supporting informed usage and disposal of plastics; and innovation to enhance the capture and value recovery of existing and future plastics.

In conclusion, we're active on a variety of international and domestic fronts and are taking a comprehensive approach. Many of the solutions are interdependent, and we recognize the need to work with all partners to achieve the vision of a Canada-wide strategy on zero plastic waste and to contribute to developing a circular economy around plastics.

[Translation]

Thank you for your attention.

I am happy to answer any questions you may have.

[English]

The Chair: Excellent. Thank you for those opening comments.

I should have mentioned at the start that this is our first hearing on plastic pollution. We've set aside a total of six two-hour hearings on this. The intention today was to hear from officials, as well as some outside experts—which will continue on Wednesday—to help us understand the nature of the plastics issue facing the planet and the role that Canada could play with federal leadership.

Today we're looking at fairly high-level comments. On Wednesday, at five o'clock, the idea is that we'll go in camera and decide where we want to focus in the remaining four sessions with eight hours of testimony, because we do want to table a report before the session ends. We'll need to be fairly tight, given the limited amount of time we have. On this, we can't study the full range of things.

That's a bit of context for what we're doing.

I would also invite the department to submit the Deloitte report that was referenced. If there are any other materials, you can always send them to our clerk and they can be shared with the committee, which, again, will help us understand the nature of the plastics issue facing the planet.

With that, I will go right to Mr. Amos....

The final thing, looking at the time, is that we have divided the committee into a first round of questions and then a second round. If we go through the first round of four sets of six-minute questions, that will take us to about the end of the time we have for today. That will give the Liberals two rounds, Mr. Fast one and Mr. Stetski one. We'll see where we're at, but that's what I'm thinking. That would be the end of the first round of questions, and then we could get into our second panel.

Mr. Fast.

Hon. Ed Fast (Abbotsford, CPC): Mr. Chair, perhaps I could make one comment. I was very much looking forward to having our ministerial staff from the department here with us so that we could scope out the mandate of this study in a way that delivered something of substance for Canadians to review, so my preference would be to add a few minutes to our first panel. I think I am going to value their input very much in terms of scoping out this study, which is a big challenge, because we have effectively only 10 hours' worth of—
The Chair: Okay. Let's see where we're at when we get through the first round, even if we could do with an abbreviated second round, and see where that takes us.


The Chair: Mr. Amos will have the first six minutes.

I'll be using my cards. The yellow card signifies that you have one minute left, and the red card means wrap it up. I'll try to hold this as close as possible to six minutes per person, so please co-operate and respect the cards.

Mr. Amos.

Mr. William Amos (Pontiac, Lib.): Thank you, Mr. Chair.

To our witnesses, thank you for your hard work on behalf of Canadians. I'll try to ask a lot of questions, so I will thank you for brief answers.

There is a lot of material here that speaks to the work that our government is doing in research and in intergovernmental collaboration around recycling and reuse, after the plastic is created, and with good reason. As you point out, the statistics show that very little of the plastics that are produced or purchased in Canada are recycled. However, when I knock on doors in my riding, I'm getting, “What are you doing to get rid of the plastics? What are you doing to reduce the use of plastics in the first place?” So I really want to turn our focus to that issue.

I'll come back to the Canada-wide strategy on zero plastic waste in a moment, but I want to address a couple of comments to the other aspects and ask a few questions on why we're not seeing more of a focus on reduction in the work that Environment Canada is doing. I'm looking at the science workshops and identifying priorities for science research. There's nothing in there on reduction. I'm looking at the government's own sustainable efforts to divert. I'm not seeing much in the way of reduction there in terms of procurement. In terms of other federal actions, the phased ban on microbeads is something about which my constituents will say, “That is a concrete federal measure to reduce.” I think it's something that is quite appreciated.

Why is there not more of an emphasis across the board on reduction on all aspects—research, procurement, etc.—and what measures are being contemplated currently by our government, not in the realm of collaboration with other governments but in the federal government's own jurisdiction, to reduce?

Ms. Helen Ryan: I think when we look at the issue of plastics, not all plastics present a problem in the environment. Keeping them out of the environment is the challenge for us, as opposed to keeping them out of our economy. Plastic resin, the production of plastic resin in Canada, is a complex $35-billion industry, so it's important for our economy and for the jobs we have here. I think the production and reuse of that plastic are really where we see that we can continue to maximize the economic benefits of it and address the environmental challenge it presents. That's why we approach it from a circular economy perspective, as opposed to saying that all plastics are bad. It's not the plastics that are bad; it's when the plastics get into the environment and then cause issues. That's why the emphasis is in the direction that it's in.

With respect to what risks might be posed from certain other plastics, that's an issue that we need to look at further. I'll turn to my colleague Nancy Hamzawi to answer that part of the question, before moving to your other question with respect to the measures we're doing.

Ms. Nancy Hamzawi (Assistant Deputy Minister, Science and Technology Branch, Department of the Environment): Thank you.

With respect to the science agenda, certainly first and foremost we are focused on situating our research agenda to support the policy direction. That being said, in terms of what you've heard about the areas of focus, that's what we've heard in the science symposium. These are the initial conversations we've had with the traditional usual suspects, who are typically in the natural science domain. That's why you hear more about a focus on sources, fates and effects.

One area where we did hear there was a significant gap was in terms of opportunities from a multidisciplinary perspective that could help us lead to those reduction opportunities. At this point in time, we are well on our way to developing a focused science agenda for plastics in Canada, leveraging the capacity within and outside of government. We're hoping to conclude that process later this summer.

Ms. Helen Ryan: With respect to the specific measures, we've been working through the government operations and our procurement strategy. In September 2018, the Treasury Board Secretariat announced the Government of Canada's action on plastic waste in our federal operations. In there, we're looking at increasing the waste diversion and diverting at least 75% of the plastic waste from our federal operations by 2030. We're reducing the use of single-use plastics in our operations, meetings and events. We're eliminating the unnecessary use of single-use plastics in government operations, events and meetings, and we're looking at procuring sustainable plastic products and promoting the procurement of sustainable plastics and reduction of the associated packaging.

There are some other things we're working on to advance the broader agenda, but with a focus on efforts with respect to government operations.

Mr. William Amos: Just before my time runs out, I'd like to just ask a question. Perhaps we can receive the response in writing. What are the regulatory or legal jurisdictional limitations, in the view of the department, with regard to bans on single-use plastics? In order to have an informed policy discussion within our own committee as we make recommendations, it would be very helpful to know how the government sees that issue.

Thank you.

The Chair: With that, we're out of time. Either Mr. Amos can get a written response to that, or somebody else may pick that up and we'll get to it before the end of the day.

Mr. Fast, you have six minutes.

Hon. Ed Fast: Thank you, Ms. Ryan, for all the work that your department does in addressing plastics pollution.
I note your comment that not all plastic is bad. It is a huge industry that drives economic prosperity in Canada, so we have to be very judicious in how we address the various challenges facing us.

Because we're trying to scope out the study, we want to make sure that, with the time available to us, we really produce something of value. I'd be interested to hear from you about where you feel our study should take us. There's a whole global context, especially oceans pollution from Asian countries. Canada may not be a major contributor to that, but it could be a contributor to resolving some of those challenges.

There's a whole issue of whether we focus on studying recycling, or perhaps reduction, as Mr. Amos has suggested. Do we focus on a specific type of pollution, say, microbeads or single-use plastics? You've also referenced waste and waste water in your presentation, and you referred to some of the global challenges we have. I'd be interested to know whether you feel the study should, within the context of the limited amount of time we have, focus on planetary leadership, as opposed to domestic leadership, or do you have another suggestion? We're trying to have you help us scope out the size of this study.

Ms. Helen Ryan: That's a tough question to answer. With respect to the complexity of this issue, if I were to try to think what might be helpful in the context of the time that you have to help advance the collective agenda and where you would best place your efforts, my sense would be around the systems dimension of plastics—but it's complicated. My sense would be that you should focus on domestic versus international, because I think our actions at home are going to matter and will influence what we do abroad. The very dimension that we spoke about, which is the importance of plastics in our economy, is huge for us. We need to deal with that issue, while at the same time dealing with the end result that comes from whether it's disposed of rather than reused.

That would be my free advice to you, but that's not an easy task. I don't know if my colleagues have further thoughts.

Hon. Ed Fast: I'll follow up with another question. Mr. Amos has suggested to this committee—perhaps rightfully so—that we should be focusing on a study of reducing plastics, as opposed to perhaps spending a lot of time on the recycling aspect of it. I'd be interested in hearing your opinion on that. My mind is open, so this is not a partisan issue here at the table. We want to make sure we're focusing on something that we can really get our teeth into.

Ms. Helen Ryan: I'll go back to my earlier comment, with respect to the value of plastics in the Canadian economy. I'm not certain that reducing plastics is actually the solution we're looking for. I think what we're looking for is keeping the value of the plastics in our economy, and not in the environment. Doing so will create economic opportunities for Canada, and at the same time address the environmental issues we're facing.

If you say, “Well, I'm going to focus on reducing plastics,” my sense is that it may lead you a little astray, in terms of trying to figure out which plastics you're trying to reduce, and to what end. That would speak to the comment of my colleague Nancy with respect to understanding the fate and impact, in order to then figure out which ones you should target. At this stage, that would be, in my view, a bit premature. That's my advice with respect to that.

Hon. Ed Fast: Would anybody else from the panel like to speak?

Ms. Jacinthe Seguin (Director, Plastics Initiative, Environmental Protection Branch, Department of the Environment): I think you asked the million-dollar question. It's one that we've pondered a lot as well, especially when the public's attention is on straws and bags. We'll happily share some stats with you. One of the reasons we're looking at the entire system, and some big parts of the system that we could actually try to change, is that straws are 0.1% of the waste stream. Single-use plastics are also a very small portion of the waste stream, albeit a visible one, and probably a visible one for Canadians or the public at large. As Helen mentioned, there's a lot of value in looking at some of the bigger pieces of the system, such as our recycling capacity and the value of those activities in the economy, and how to enhance them so we can recover more.

We export plastics, plastic waste, but we also import a whole bunch as well. We've been trying to figure out what those big pieces are that can actually move us toward a much higher degree of recovery. Certainly, reduction is near and dear to everyone's heart. We're looking at it a little bit, but it raises a lot of difficult questions as well: What do you reduce, and why?

Hon. Ed Fast: Thank you.

The Chair: We'll move over to Mr. Stetski.

Mr. Wayne Stetski (Kootenay—Columbia, NDP): Thank you for being here, and thank you for the work you're doing on this very important topic.

Over the last five months, two of my colleagues in the NDP have introduced a motion and a bill. I won't go through them all, but on December 5, the House of Commons unanimously agreed to a motion by Mr. Gord Johns that “the government should work with the provinces, municipalities, and indigenous communities to develop a national strategy to combat plastic pollution”. It looked at two parts: regulations and “permanent, dedicated, and annual funding”. There was more breakdown below that.

Then, on February 20, 2019, MP Nathan Cullen introduced Bill C-429, an act to amend the Canadian Environmental Protection Act, which was a private member's bill looking to reduce plastic waste entering the environment by requiring all packaging sold in Canada to be recyclable or compostable.
I was regional manager with the Ministry of Environment back in my home riding of Kootenay—Columbia, and one of the things we always wrestled with was the appropriate balance between regulations and voluntary best management practices by industries and companies. I see that the ocean plastics charter talks about recycling, reusing and recovering plastics. I'm wondering where you think regulation is most appropriate in any of those three elements, or just in general related to plastics, versus requiring or asking industry to follow some best management practices.

Ms. Helen Ryan: With respect to the role of regulations, as I mentioned at the outset, this area is a shared area with provinces and territories. Municipalities also play a role, as does the federal government. I would say, with respect to the actions that are going to be needed to help get us to our target, that it's going to take a mixture of all the tools we have to address things in a comprehensive way.

The question will be about the timing for that: who's best placed to do it and at what stage you employ the interventions. I don't think that you should regulate everything and leave nothing to collaboration or voluntary measures. I think that, as you work through the spectrum of it, you're going to look to define things. For instance, when we talk about extended producer responsibility, there are provinces doing work in that area. Some of them are doing it from a regulatory perspective; others are doing it from an MOU perspective with their industries. Both of those measures can be equally effective. It depends on the nature of the relationship with their industry.

Then we think about the role the federal government can play in that context. When you look at the overarching question of how we can move to harmonization, we can help through the development of standards, and then others can employ those standards through their means. So I think it's really a mixture of things.

As we go through, and as the science helps to inform things, we may find there are needs for certain targeted measures—for instance at a federal level, as we had with microbeads, in which case we put in place a targeted regulation to keep those out of cosmetics and toiletries. That's informed by the science and the assessment.

I think it's going to be a mixture of all the tools we have in our tool box.

Mr. Wayne Stetski: It is going to take all three levels of government—federal, provincial and municipal—to really make an effective system.

When you look at the federal level of responsibility, again, do you think federal regulations are most appropriate at the producer level, or for the reuse or recycling? Have you looked at that aspect of it, for federal regulations?

Ms. Helen Ryan: Those are the kinds of issues we're actually working through with our provincial and territorial colleagues in the development of the action plan: what kind of element makes sense and at what stage. We're working through that, engaging stakeholders and others to help inform the development of that action plan. That will then help inform the role we should play and where it's best to make use of federal actions.

I've talked about a number of things we're already doing with respect to that, including the development of standards and codes of practice, but there's also our purchasing power, the procurement we are doing and the support we're providing, for instance, for innovation. We're using federal actions in a variety of ways, including from a fiscal perspective, in terms of investing in innovation. We look at it in terms of the regulations we have for microbeads, for instance. Then we look at things like standards, which we develop jointly with others and have implemented through those kinds of means. Those are just illustrative.

Mr. Wayne Stetski: It's about scoping out our exercise, again, to make sure we're focusing on things on which the federal government can have the most impact or effectiveness. Any advice you can give us on that would be appreciated.

For the benefit of my colleagues, MP Cullen has asked to come and appear as a witness before the committee. I gave that request to our chair.

The Chair: Thank you.

Next up is Ms. Dzerowicz.

Ms. Julie Dzerowicz (Davenport, Lib.): Thank you so much.

Thank you for the excellent presentation.

This is something on which, like Mr. Fast, I wish we could have a lot more time for questions.

One of the things that surprised me was that there are a number of products actually produced that are not recyclable. There's different recyclability of plastics, which surprised me. I guess I want to ask whether we're working with industry on a little bit of that consistency and whether we're doing our work here in Canada, as well as abroad.

The second part of that question, because it deals with industry, is this: What do we do in terms of making industry responsible for its own plastic packaging? Is there any work we're doing around that?

I'll pause, and then I will have some additional questions after that.

Ms. Helen Ryan: In terms of the work with industry around consistency, there is work going on with respect to that. Also, there are discussions and the development of an action plan about how much further we need to go with regard to that, to figure out how we can get at consistent contents and how they are able to produce things in that fashion, both in terms of the products they design and in terms of the packaging they use for those products—

Ms. Julie Dzerowicz: I'm sorry to interrupt, but am I right to believe that some of them are more recyclable than others, which is why we want to move to consistency?

Ms. Helen Ryan: Yes. For instance, if you have a plastic that's multi-layered, it's much more difficult to recycle than you might find with one of your clear plastic bottles where the label isn't affixed to it. That can be much easier to recycle, and it would be easier to reuse the plastic.
The idea of what you're using for your packaging and how it's made becomes important. There are conversations with respect to that, but also, I would say, information is needed in order to gain a better understanding of those important dimensions around the development of packaging, what it's used for and then how you can go about creating an alternate that still serves the same purpose. Those are important questions that need to be addressed as people think about how they put in place a requirement or work with industry for it to voluntarily look at that.

There are good initiatives going on with industry around that, where they are actually looking at their packaging requirements. They are thinking about it themselves and putting in place their own targets on how to reduce it.

You asked about industries being responsible for their own packaging. There are extended producer responsibility programs whereby they're actually involved in the funding and management of the programs, so that industry works to fund and put in place a program that allows the management of their product at the end.

Those are things that are also being looked at in terms of how to enhance that. When we think about extended producer responsibility, it wasn't developed with a single focus around plastics, so how does the plastic lens get taken into account? How can we go further with respect to that? A number of retailers are doing some voluntary measures with respect to that. There are things like Loblaws and Sobeys collecting their plastic bags for recycling—

● (1645)

Ms. Julie Dzierowicz: I'm sorry to interrupt. I don't have a lot of time, but I appreciate the examples.

I guess there's one more question that comes to mind as you're talking. Why can't we just say that you can't produce and sell plastic in this country unless it's recyclable? Why are we not able to do that? Why would any country in the world allow any of these companies to produce it unless it's recyclable? Why is it that they're producing plastic that is not recyclable?

Ms. Helen Ryan: That's like the million-dollar question, but when I talked about... It's a system. The whole way in which we produce our products, and then how we dispose of the material and how it gets collected, managed and reused, is a system. To say that we want you to stop putting it out at the back end needs to be informed by what you're doing at the front end.

Today, to say to everyone to just stop doing that, you need to understand why they are doing it and what the nature of the issue is. You need to have commonality around what you can actually recycle, because you can say, “This is recyclable”, but you don't have a collection system that's robust enough to be able to draw that material in. You need to have a level of robustness there. You need to have the infrastructure in place around it in order to make use of it.

The answer is not a simplistic answer. It's to bring it into the circular economy perspective and work along the stream so that you can have that actually happening, and so that when you make the requirements, they're specific and they apply, and you know which content.... Think about your blue box and all the things you can put in it. Well, to be able to manage that properly, you need to be thinking it through so that you can then use the product at the front end and make use of the recovered material.

The Chair: You have about 20 seconds left.

Ms. Julie Dzierowicz: The other thing I'd love to know.... Nine per cent in terms of how many of us recycle our plastic sounds really low. Is this consistent with other G7 countries, the low recycling rate we have with plastics?

Ms. Helen Ryan: Yes, it is consistent. That's why we put in place a target to have 100% of it be recycled, reused or recovered by 2030.

Ms. Julie Dzierowicz: That is surprising and upsetting, actually. Thank you.

The Chair: That takes us to the end of the first round.

To Mr. Fast's point, we could do an abbreviated round, a couple of questions. It's probably going to take us five minutes to bring in the next panel and connect the person by phone. We had given our two panellists seven minutes each, so there will be 15 minutes for comments. If we went right into the second panel, just with the changeover of the witnesses, we'd be able to get through the first round of questions on that one. We can drop one of the sessions so that each side gets one question for the second panel.

Hon. Ed Fast: I'd like to give my colleague Monsieur Godin—

The Chair: Okay, so let's go with three minutes for Joël and three minutes for Darren.


The Chair: Then we'll stop and go into our second panel.

You have three minutes.

[Translation]

Mr. Joël Godin (Portneuf—Jacques-Cartier, CPC): Thank you, Mr. Chair.

I thank the witnesses for being here.

I will get straight to the point.

My colleague Mr. Amos mentioned that we were being asked in our ridings about what concrete actions the government is taking to reduce the use of plastic and encourage its recovery. Mr. Fast asked what priorities should be established.

You see that Canadians are aware of the situation. They want us to take action. They are not currently seeing any changes. Canadians seem to be engaged in an emergency conversation, and we are not taking action.

I have a question for you. I know that there is $1 million in play, but you are specialists and are in contact with scientists. Ideally, everything would be done, but we know very well that is unrealistic. We understand that timelines are needed.

Can you tell us what we should do to make the process effective as quickly as possible? ● (1650)

Ms. Helen Ryan: The strategy that has been developed by the provinces and territories clearly outlines the 10 areas where action is needed. Action must be taken in those 10 areas.
As we were developing our action plan to that effect, we defined the five priority areas for action, which were established deliberately. It is truly a matter of looking at what we can do in terms designing those products and in terms of the use of single-use plastic products, as well as in terms of what we can do to encourage markets toward a circular economy to improve our waste collection management system and increase recycling capacity. Those are really the five priorities.

**Mr. Joël Godin:** Thank you, Ms. Ryan.

We are unanimously for virtue, but we don't know where to start. We are dealing with a mountain.

I have created a circular economy committee in my riding. It has been in the works for a year, and it is about to start operating. We understand that the process is long, but actions must be taken.

I will simply reuse the terms and verbs you used. It has been a matter of examining, measuring, increasing, eliminating and working on other measures.

We are all full of good intentions, but no concrete actions have been taken. That is why priorities must be well established. Your efforts are guiding us in our study.

[English]

**The Chair:** Thank you. That's the three minutes.

I'm going to have to jump over to Mr. Fisher.

**Mr. Darren Fisher (Dartmouth—Cole Harbour, Lib.):** Thank you, Mr. Chair.

It's a shame we don't have enough time with you. I'll get to this pretty quickly.

Ms. Ryan, you were saying you think we should stick to domestic versus international. I kind of agree with you. However, we're surrounded by coasts, so we impact international and we're impacted by international. It is kind of interesting. I think it's important that we focus on what we can actually accomplish through policy and legislation. The jurisdiction issue is big within our country, for sure.

Is the G7 plastics charter binding? What penalties are there for countries that don't adhere to that charter? Also, I understand the EU has done some things that might go over and above the charter. Time is short, but could you also quickly touch on what they've done?

**Mr. Dany Drouin (Acting Executive Director, Plastics Initiative, International Affairs Branch, Department of the Environment):** The plastics charter, like everything related to G7, is not a binding commitment, but countries that come to the table and endorse those documents are thinking of implementing them. In some ways, it's not legally binding as a treaty would be, but there is a real commitment that is made.

The EU has been doing different things related to single-use plastics in particular, but also in terms of putting forward the road map to get to the objectives of the charter.

**Mr. Darren Fisher:** Switching gears for a second, going to EPR, in 2009 the provinces and territories came up with the action plan for EPR. Has anybody worked on that? Has there been work done on the action plan for EPR, specifically for plastics? I know there are different EPR systems in the provinces, but have they—

**Ms. Jacinthe Seguin:** Specific to plastics, as you know, there isn't one. One of the many categories is not exactly plastics; it's packaging. There are also automotive products, textiles and construction.

The first thing that provinces did was to put in place their legislative authorities, because when it came out in 2009, they didn't have the right authorities, so they put them in place. That takes time. All the provinces have those authorities now, and some of them have been able to move much faster in implementing programs.

B.C. and Quebec have strong EPR programs that include packaging, but with all kinds of different administrative burdens and approaches. That's one of the things we'd like to get to move up, to have the “best in class” type of EPR programs.

The 9% recycling rate is national, but some provinces, particularly B.C., have a much higher recycling rate, 20% to 30%. If everyone was at “best in class”, which is B.C. right now, then the rate would be so much higher in Canada. Where it's been slow is with durable products, durable goods, so we have to remember that plastics are not just in packaging but in cars and construction materials.

**The Chair:** I'm afraid we're out of time there.

**Ms. Jacinthe Seguin:** That's another million-dollar question.

The Chair: With that, we're going to suspend. I'd like to remind our colleagues at the table that we always have the ability to invite the departmental officials back if we find that there's more we need to know.

Thank you so much for coming today and sharing the information you have. We may be seeing you again.

**The Chair:** All right. We're ready to get going here.

Thank you to our two witnesses who are here today. We have Benoit Delage, with Conseil régional de l’environnement et du développement durable de l’Outaouais. We'll start with his opening statement, once we have everybody's attention, please. Then we'll move to Mr. Wilson from the Smart Prosperity Institute, and we'll hear his testimony.

Gentlemen, welcome.

Mr. Delage, we'll give you about seven minutes for your opening comments. As with the previous panel, when there's one minute left, I'll flash the yellow card. When you're out of time, I'll give the red card. Wrap it up as quickly as possible.

Once we go through both, we'll get into 18 minutes of questions and answers. I apologize again for the delay in getting to you today. Fortunately you're both local, so I hope that if we felt we needed to, we could invite you back.
Mr. Delage, you may start.

● (1700)

[Translation]

Mr. Benoit Delage (General Director, Conseil régional de l'environnement et du développement durable de l'Outaouais):

Good afternoon.

Thank you for inviting me.

The committee's work is very important. Canadians are expecting a lot from you and their government. It's becoming clear that people are feeling anxiety about the environment, and they want immediate action.

I spent part of the weekend reviewing your action plan. I prepared a brief that you should be receiving in the next few days, once it's been translated. I want to commend you. The plan takes account of the circular economy in quite a meaningful way. A circular economy strategy is very beneficial to a nation's economic development.

I'd like to draw your attention to three of the priority result areas. The first is collection systems, the idea being to keep all plastic products in the economy and out of the environment. A parallel could be drawn with contaminated soils, in the sense that the negative externalities are high because the substance is not disposed of properly. Furthermore, the market has not been able to hold bad actors accountable.

In Quebec, we've been able to set up a traceability scheme to track the movement of contaminated soils. A similar system should be used for plastics. Much of the plastic that leaves recycling plants ends up in the environment or is shipped to other countries. Scientific monitoring is needed in order to understand where the substances wind up accumulating. Applying the extended producer responsibility, or EPR, model to the plastics industry can have a positive impact. Our experience in Quebec has shown that EPR outcomes can really vary from product to product, so it's important to make sure that the industry-wide scheme is robust enough to be effective.

At the end of the day, producers should find their own ways to have their products recycled. All the government should do is ensure that the industry has achieved the desired results. That brings me to my first recommendation, adopting a plastics traceability system and an extended producer responsibility scheme to account for all of the negative effects of pollution. The secondary objective would be to raise the value of recycled resins and ensure processors have access to them. Currently, what we are hearing from the recycling industry is that these materials aren't adequately available and that companies struggle to incorporate recycled materials into new products.

The second priority result area I'd like to draw your attention to is empowering Canadian households, businesses and institutions. Through social media, people have learned that a lot of plastic waste ends up in the environment, to the outrage of many. A recent movement called Break Free from Plastic has led to cleanup initiatives in 42 countries, and the collected plastics were audited. In Canada, the top five polluters were responsible for 42% of the plastic trash collected: Nestlé, Tim Hortons, Coca-Cola, Pepsi and McDonald's. It's clear industry has a role to play. In Quebec, the cost of cleaning up garbage along the side of the road has risen 43% since 2011. People's lack of civic-mindedness has a cost, and it is being borne by entire communities, municipalities and government departments. The time has come for the industry to step up and take responsibility for dealing with these plastics.

The pressure has sparked innovation. A deposit return scheme is a great way to hold all actors accountable and should be applied to single-use plastics—something we're seeing more and more. Some Montreal coffee shops, for instance, belong to a program where customers can buy a cup of coffee and then leave the cup at another participating coffee shop, where they can get another cup. The cup isn't reusable; it has a deposit on it.

According to media reports, the big companies are looking at a similar system. The same applies to windshield wiper fluid containers; they are no longer necessary because people can get their fluid filled right at the gas station.

Putting pressure and restrictions on industry brings about innovation on the reuse front. Transferring the financial burden to the industry is key if all stakeholders are to pay less.

The last priority result area I would like talk to about is number eight: research and monitoring systems. Indeed, this process is taking a long time and more data is certainly needed. Right now, we don't know where all this is going. We don't understand the full scope of plastic waste, so taking the time to make the right decisions is essential.

It may be tempting to move quickly and impose bans, but that can have adverse effects, as we saw in the case of biodegradable and o xo-biodegradable bags. They had a harmful impact on the environment.

Systemic change is really what's needed in terms of economic drivers. The way we manage plastics currently is costing us all dearly.

That's why I recommend supporting research and businesses, as CREDDO is doing. We are one of 16 industrial symbiosis networks in Quebec. I manage a team of three people who travel around to support companies and help develop circular economy initiatives. We are active in the area of agricultural plastics, not to mention many others, in the Outaouais region, and it's working.

Businesses are willing to act and change their business model because they see that it is profitable. The situation simply has to change because it's not a level playing field. We need more data to bring about a circular economy, especially in the plastic sector.

Thank you.

[English]

The Chair: Thank you very much.

Mr. Wilson, I'll turn it over to you for about seven minutes. Just so everybody knows, I understand we have a guest on the phone, Mr. Usman Valiante. We'll turn it over to you, but I want to make sure that everybody knows they can direct questions to either of you for the Smart Prosperity Institute.

Mr. Michael Wilson (Executive Director, University of Ottawa, Smart Prosperity Institute): Wonderful.
Thank you for the opportunity to appear.

The Smart Prosperity Institute is a clean economy research network and think tank at the University of Ottawa. We've appeared in front of this committee and the Senate committee on issues such as this quite regularly. Carbon pricing and climate policy, clean innovation and environmental impact assessment are some of the different areas that we do research on. We focus on public policy research to grow the economy and to protect the environment concurrently. We're evidence-based and non-partisan.

One of the major areas that we've turned our minds to now is the circular economy and plastics waste. We're active on the issue, both as a research institute and as part of the Circular Economy Leadership Coalition. I'll speak about that coalition briefly in my remarks as I go on.

As you noted, Mr. Chair, I'm here with my colleague Usman Valiante. Usman is one of Canada's foremost experts on the policies that we can use to manage plastics waste, and he was the lead author on the major report we released on the topic. I have copies of that if people are interested. Usman will participate in the question and answer period.

I should say thank you to the clerk and to the chair for accommodating that request at the last minute. It's an idea that I kind of had at 2 o'clock on a Sunday, so thank you for getting him on the line for this.

In my remarks, I'll speak quickly on three issues. First, I'll tell you why there's such a significant corporate and civil society interest in plastics right now. Second, I'll talk about the policies that government can activate in order to make progress on the issue. Finally, I'll share some thoughts on the role that civil society and business can play—complementing the government role—to help move this issue along.

First, Environment Canada testified earlier on the urgency of the issues, the actions the government is taking, the science behind it all and the commitments we've taken on, so I won't spend much time on this. I just want to convey a couple of points that are perhaps supplemental to that.

At SPI, at my institute, we tend to focus on issues where we see an environmental problem and a significant economic opportunity that can be realized in addressing that problem. With regard to plastics, studies have shown that, globally, somewhere between $100 billion and $150 billion of economic activity is jeopardized by allowing plastics to be disposed of and not reused. There's a huge economic potential in addressing this issue. As Ms. Ryan mentioned, we're capturing only about 12% of plastics within the recycling system in Canada. The exact amount is debatable, but a significant part of that 12%, even, is not actually recovered and reused within the recycling system.

It's partly due to this that we launched the Circular Economy Leadership Coalition last year at the G7 environment ministers' meeting in Halifax. I won't go into the details of this, but you can visit the website. It's an initiative made up of some of Canada's largest and most significant retailers and civil society organizations. It's chaired by Unilever Canada and The Natural Step Canada, and it's working to make Canada a world leader in a sustainable, prosperous, zero-waste, low-carbon emissions circular economy.

My second point—probably the most salient to the work that you're undertaking now—is what governments can do on this issue. I have copies of our policy brief, and we can answer more questions on that. We looked at six policies that governments at different levels can activate in order to make progress on plastics. They're designed to reduce the waste of plastics and recapture the value of those plastics back into our economy.

The first is a broad class of policies that assign property rights and responsibilities to end-of-life plastics. Extended producer responsibility was mentioned, and it's the most significant of these and the most commonly cited. It induces producers of plastics to be responsible for the end-of-life phase of their products, and the result is that there's a supply of reused plastics that become available for manufacturing and available to the economy—again, recirculating them through the economy. British Columbia has probably the most cited and best-known set of EPR programs in the country, but there is little question—I'd say no question—that there aren't enough of these in the country, and that the ones we have aren't working well enough and are too fragmented to really be able to achieve the levels of plastics waste reduction that we want to achieve across the country.

The second set of policies gets to one of the questions that one of the members asked earlier. They are policies that set recycled content performance standards. They either set a minimum percentage of recycled content that has to be in a product or in packaging, or they can operate as a tax mechanism whereby you pay less and less tax the closer your recycled content comes to the legislated or government-sanctioned standard.

There is a third set of policies we look at, and this is going to sound a little bit administrative and bureaucratic, but it's actually incredibly important. Government has a really significant role in creating common definitions, performance standards, and measurement and assessment protocols. Those really are the keys to enabling policies to operate harmoniously across the country or across an economy. Without them, you really fall, in this area, into fragmented systems and fragmented markets and policy directions. From Ms. Ryan's remarks, you can see the incredible suite of policies and actions that can be activated for plastics waste. Having some level of consistency across them becomes really important to the market actors who are out there trying to respond to them.

The last three we looked at—I'll be really brief—are prohibitions or bans on certain plastics, economic instruments to internalize the costs, and pricing for greenhouse gas emissions associated with the burning of plastics.
My last point—and I'll be extremely brief on this, Mr. Chair—is about what organizations like ours or coalitions like the ones we put together, or other civil society organizations that are out there, can do to help on this. I suggest that the federal government needs to think creatively about how to use outside-of-government organizations. As I alluded to, and as you can draw from Ms. Ryan's remarks, a lot of action is needed at different levels of government, and the risk of differing or non-aligned market signals is really significant. Some of the outside-of-government players can play a role in raising awareness about the solutions that can be activated and in socializing some of those solutions for politicians; in research that helps inform government policies and business practices; and in developing some of the solutions and policy frameworks. One example that a lot of people cite is the UK Plastics Pact, which in the U.K. is incentivizing businesses to reduce their plastic waste.

Thank you.

Thank you to our witnesses.

Mr. William Amos: Thank you, Chair.

[Translation]

It's a pleasure to see you, Mr. Delage. You live in my riding, and CREDDO is an important player in the Outaouais area. We are very grateful for everything you and CREDDO are doing in the Pontiac and Outaouais area.

I'd like to ask you about the regulatory role the federal government could or should play in this area. I took notes when Mr. Wilson was speaking, and I may have questions for Mr. Valiante as well. I realize how much expertise he has, having worked with him about 10 years ago.

I'd like to know which areas the federal government should look at in terms of making regulations or passing legislation in order to send the markets a clear signal. I heard all the ideas that were proposed in connection with the circular economy, and government officials expressed their interest in that regard. That said, we need specific proposals for federal regulatory measures. That was evident in the case of microbeads. I'd like to know which areas the federal government should look at in terms of making regulations or passing legislation in order to send the markets a clear signal. I heard all the ideas that were proposed in connection with the circular economy, and government officials expressed their interest in that regard. That said, we need specific proposals for federal regulatory measures. That was evident in the case of microbeads. I'd like to know how much expertise he has, having worked with him about 10 years ago.

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Mr. Michael Wilson: I'm not sure he's hearing this, so let me get started.

I think there are a few areas where the federal government can play a really valuable role. Some are on the harder, more regulatory side, and some are on the softer, more sunside and market-oriented side. For what you did on microbeads and other areas where you have very clear jurisdiction over the toxic contaminant aspect of a constituent of plastics, you can play a very strong role under the Canadian Environmental Protection Act in either regulating them out of the production system or managing their life cycle in the production system. You've done that with certain toxins in plastics, and there may be other ones the federal government could look at.

More generally across the plastics waste stream, I think the federal government is the holder of the best science on this and has a really valuable role to play in setting the performance standards that you would expect them to meet, such as extended producer responsibility systems. Then the federal government can be more creative or more flexible on how extended producer responsibility, for instance, gets delivered. The federal government could set the outcomes that would have to be achieved or the levels that are needed in order to meet either diversion targets or the environmental outcomes that you want.

Coalitions of business, NGOs and provincial and municipal governments can deliver on those commitments if they are endorsed or set out at the federal level. They have a really valuable role, as difficult as it can be, in steering the federal/provincial ship that's trying to get harmonization across the systems.

[Translation]

Mr. William Amos: Thank you.

I have a quick follow-up. I appreciate that there could be a great role for the feds to help shape objectives and work intergovernmentally, but what we've seen with the 2009 action plan is that the provinces actually don't hold up their end of the bargain. I want to know how we can get around that.

If there's no time for an oral commentary, perhaps Mr. Valiante—based on his experience intergovernmentally—can provide us with his opinion on what the federal government needs to do to create, without imposing, a framework whereby action is going to be delivered across the country through other jurisdictions.
The Chair: That's the end of the six minutes, unfortunately.

We're going to go to Mr. Miller.

You have six minutes.

Mr. Larry Miller (Bruce—Grey—Owen Sound, CPC): Thank you very much, Mr. Chair.

Thank you to our guests for being here.

I just wanted to point out that I got involved in municipal council back in 1991 in the township of Keppel. I was on what they then called the waste management committee. Today it's the environmental committee; the names have changed. I was actually part of the team that initiated the very first recycling in our rural part of Ontario. I believe strongly in recycling, but I'm also a realist and I realize there are limitations. You've pointed out some of them. Our recycling actually extended the life of our dump by an estimated 23 to 25 years, so there was a value for the taxpayer right there.

You talked about traceability. Remember, I have only six minutes. Very briefly, in 30 seconds, how would you define “traceability”? [Translation]

Mr. Benoit Delage: This is how Traces Quebec, the only traceability scheme currently in operation, describes itself:

Traces Quebec is a private real-time waste tracking solution. Hosted on a web platform, Traces Quebec allows owners to follow in real time the movement of their materials and to have an encrypted, confidential and archived trace of the entire process. In the era of transparency and eco-citizenship, Traces Quebec allows organizations to demonstrate beyond any doubt their exemplary management in the disposal or treatment of these materials.

The goal is to do the same with plastics that leave recycling facilities. Now, they are sold to the best bidder, very often ending up in other countries because it costs less than sending them to landfill. Where exactly does the plastic go? Suffice it to say, it's not being utilized to its full potential.

[English]

Mr. Larry Miller: I'm not sure what we can do to stop plastics ending up in other countries. I would think that this is an exception more than it is the norm.

Mr. Wilson, you also talked about increasing the price, and Mr. Amos mentioned the real cost. Well, the real cost of something is what somebody is willing to pay for it. Consumers, being what we are..., I'll use an example. I get a lot of constituents who complain, “Oh, we have to stop stuff from China coming into Canada.” There's only one way to do that—it's consumer responsibility. If you and I, as consumers, don't buy it, they're not going to sell it here. They might sell it to somebody else, but overall they'll sell less. Really, at the end of the day, how does increasing the price work? The consumer ultimately pays more. The manufacturer pays more.

I have just 30 seconds left.

* (1725)

Mr. Michael Wilson: Okay, I'll give you a quick answer on it. I'm going to try to hit on a couple of points.

When we talk about passing on the costs to consumers or to producers, what we're always referring to, as economists, are any of the costs that society would otherwise bear. You internalize them to the producer of the product. These aren't new costs we're creating—

Mr. Larry Miller: Do you add them to the cost of the product?

Mr. Michael Wilson: The market will add them to the cost of the product through these tools, yes.

Consumers need to be activated and to be given choices. There's decent evidence that if they are given choices at comparable prices, they will choose the less wasteful.

Sorry, did you want to get in, Usman?

Mr. Usman Valiante (Senior Policy Analyst, Corporate Policy Group, Smart Prosperity Institute): Yes, sorry, I haven't been able to talk.

Voices: Oh, oh!

Mr. Larry Miller: Okay, maybe I could ask you my next question, because I know I'm going to run out of time.

Mr. Delage, there is one thing I did want to say. You had a really good suggestion on windshield washer fluid. That is something practical. Actually, I was gassing up the other day and I needed some, and I was thinking, “Man, it would be nice if I could just refill that jug lying in the back of my car.” That's something I think we can work on.

Now, with respect to educating developing countries... We see some of the images, on social media especially, of piles and piles of plastic in the water. I think we'd all agree that, with the odd exception in North America, most of it is in developing countries or whatever. Mr. Valiante, could you speak to that and to how we might address it? Is educating developing countries the only part of the equation?

Mr. Usman Valiante: I think the way to address the plastic waste in developing countries is to use the same policy tools that you would use in Canada. We've talked about extended producer responsibility, which then puts the onus on manufacturers to collect and manage these materials and build the systems to do that. When we talk about developing countries, what we need to install there is the institutional capacity to administer these laws and regulations.

Certainly, with respect to the earlier discussion of what the federal government can do in Canada, the federal government can have a coordinating function with the provinces to establish these performance standards and measurement protocols. It can also play a role in registering producers and finding how much they're selling, so we can then measure how much we're collecting. Developing countries would benefit from those same rules we need in Canada.

I often say that some of our best exports from Canada are our institutions. How we write those laws and how we assist those countries in administering them is going to have a much greater effect than doing a one-off river cleanup. It's their ability to put these laws in place, which then allows the manufacturers to invest in the systems to clean the stuff up.

Mr. Larry Miller: Okay, thanks.

The Chair: That's the end of the time.
I just wanted to say, Mr. Valiante, it's good to hear you. I know we had some problems, but we do have you on our witness list and we may be able to get you back for a full panel. I think you have a lot to offer us.

Mr. Stetski.

**Mr. Wayne Stetski:** Thank you for being here.

One of the things we're looking at, of course, is the scope of what we have time to look at over the next five or six weeks. There's the producer end of it; there's recycling; there's reusing and recovering plastics. I'm wondering if you can speak quickly to some of the innovation that you've seen around any aspect of that, and whether different sectors of the economy are looking at different innovations for their sector. For example, medical plastics would be different from textile plastics, so can you tell us whether the industry as a whole is trying to move forward? Should we be calling for witnesses to speak to some of those?

What have you seen that's new and innovative at the different levels?

● (1730)

**Mr. Usman Valiante:** I think the innovation that's happening is in the systems to collect materials and the systems to recycle them. The officials from Environment Canada mentioned 80 core players in the Canadian market that are recycling plastics. They're bringing new technologies to bear on recycling plastics, and some very innovative stuff in the chemical and mechanical recycling of plastics.

What they suffer from is that they don't have the skill right now to operate commercially. They can't get a supply of recycled plastics—plastics to actually recycle—and there's no demand for what they're producing, because what they produce competes with virgin plastic resins made from fossil fuels, which are very cheap today.

What we can do is bring these policies in place—the extended producer responsibility and the recycled content rules—which will allow them to commercialize and scale these recycling technologies.

Canada has a very sophisticated petrochemical sector. The plastics recycling sector is a subsector of the petrochemical industry. We have technologies to produce green plastics—that's producing plastics from carbon capture. All of those things need scaling, and scaling is going to come from these policies, to create a supply of recycled plastics and a demand for green plastics, whether recycled or produced from renewable chemistry.

I think the committee would benefit dramatically from hearing about some of these innovations that are occurring, what the barriers are in the market economy today, and what the federal and provincial governments can do to set a new trajectory for the plastics economy, which is going to grow. We should be deriving all of the economic benefit, but without the waste. There are some key policy interventions that Mike described—they're in our paper—that will set us on that trajectory.

**Mr. Michael Wilson:** They really are amazing technologies that are ready to reach scale, and in want of the right policy signals to pull them through the system.

**The Chair:** Wayne, sorry, I'm going to have to jump in. We're at the end of the time we have, so we'll wrap it up here today.

Thank you so much.

**Hon. Ed Fast:** Chair, I just have one point.

Mr. Wilson talked about six points. He got through three of them and had to really rush through four, five and six. Are they all in there?

**Mr. Michael Wilson:** They're all described in there.

**Hon. Ed Fast:** Fantastic. If that could be circulated, that would be great.

**The Chair:** We'll get a copy.

Thanks, everybody. This is the first session. As I said, we'll pick it up on Wednesday and hear more, to help us understand where we may want to go.

The meeting is adjourned.
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