



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

44th PARLIAMENT, 1st SESSION

Standing Committee on Industry and Technology

EVIDENCE

NUMBER 066

Monday, April 17, 2023

Chair: Mr. Joël Lightbound



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• (1540)

[*Translation*]

The Chair (Mr. Joël Lightbound (Louis-Hébert, Lib.)): Good afternoon on this fine Monday.

I call the meeting to order.

Welcome to meeting number 66 of the House of Commons Standing Committee on Industry and Technology.

Pursuant to Standing Order 108(2) and the motion adopted by the committee on Monday, November 28, 2022, the committee is meeting to study the development and support of the electronics, metals and plastics recycling industry.

Today's meeting is taking place in a hybrid format, pursuant to the House order of Thursday, June 23, 2022.

We have quite a few witnesses joining us today as we continue our study. With us are Jean Simard, president and chief executive officer of the Aluminium Association of Canada; Christa Seaman, vice-president of the plastics division at the Chemistry Industry Association of Canada; Peter Fuchs, vice-president of corporate affairs for nickel, and Alexis Segal, head of government relations and communications, both from Glencore Canada; and lastly, Maria Kelleher, principal at Kelleher Environmental.

Thank you all for being with us.

Now, without further ado, we will begin the rounds of questions.

Mr. Sébastien Lemire (Abitibi—Témiscamingue, BQ): Mr. Chair, I just want to point out that we also have Marie-Élise Viger joining us.

The Chair: My apologies for forgetting you, Ms. Viger. Thank you for joining us.

Thank you for correcting me, Mr. Lemire.

We will start with Mr. Simard, from the Aluminium Association of Canada.

You have five minutes, Mr. Simard.

Mr. Jean Simard (President and Chief Executive Officer, Aluminium Association of Canada): Thank you, Mr. Chair.

Thank you to the committee members for inviting me to share our experience in the circular economy.

As you know, the aluminum industry has a strong footprint in Canada, with nine aluminum smelters, most of which are in Quebec and British Columbia. The association is a founding member of the

Pôle québécois de concertation sur l'économie circulaire, a Quebec centre for consultation on the circular economy. Our members are also involved regionally in a range of activities that support circularity.

My remarks will focus on two aspects of recycling: metal recycling and production by-product recycling.

Post-production metal, in other words, before it gets to the consumer—so after processing—is almost entirely reused in our plants. It has tremendous value, and is much easier to recover and incorporate back into the system. Post-consumer metal has a number of limitations, and I'll talk about that later.

The second line of reasoning has to do with production by-products, so non-metal products. Various by-products are generated, whether it be carbon, spent potlining or scum. The industry is working very hard towards its goal of zero landfill waste for these types of products.

We can now say that more than 80% of by-products are reused, recycled or recovered. The remaining materials pose a problem, one that calls for a regulatory response as much as a technical response. Their properties are less suitable, which means they require pretreatment and mixing. They also generate hazardous materials from a regulatory standpoint.

Now I'll come back to post-consumer metal, which is found in packaging, transport vehicles and buildings. That's what we call aluminum deposits. Consumption generates a variety of objects that can be recovered and reused to produce new aluminum. An aluminum can has a life cycle of about 60 days before a new can is manufactured from the same metal. It's longer for vehicles, between 10 and 12 years. In the case of a building, it takes about 50 to 70 years before the metal can be recovered.

The success or recovery rate varies from one sector to another. In Quebec, cans with a deposit have a recovery rate of 66%. In the transportation sector, the rate is between 80% and 90%. Keep in mind, however, the 10-to-12-year life cycle in the automobile sector. Lastly, in the building sector, the rate is 80%. It's important to understand that half of everything that's recovered is not reused. That's very important to know because it represents a lost resource for society and the economy. There is a lot of work being done in that area.

There's a major challenge in Canada: we don't have a critical mass. That's a structural and systemic issue. Quebec, for instance, has about 1.3 billion consumer cans a year. While that may seem high, it's actually quite low. An empty can amounts to air. For the purposes of a critical mass, the cans need to be crushed, baled and sent to a centre where the metal can be melted down. A wide range of technical complexities also come into play, such as removing the lacquer from the paint. What's more, it all has to be done in a way that's economically sustainable. Our critical mass is so small because of our small population size. As a result, solutions that may seem obvious won't work here because the necessary infrastructure would result in losses year after year.

Consequently, our metal is sent to the U.S., not far from the border, to places like Massena, New York. There it is melted down and reused. At the end of the day, it's not a bad thing because most of the plants in the U.S. run on coal, so this helps them reduce their carbon footprint significantly and thus their greenhouse gas emissions.

• (1545)

Beyond that, we also carry out a lot of research for other production by-products. We have scientists looking for ways to transform residual materials into products. Rio Tinto, for instance, has nine scientific experts working on marketing and supply.

Transforming residual materials into products is good, but then, they have to serve a purpose. They often need to be repositioned in a new market where they can provide value.

That concludes my remarks. I am available to answer any questions.

The Chair: Thank you, Mr. Simard.

We now go to Ms. Seaman for five minutes.

[*English*]

Ms. Christa Seaman (Vice President, Plastics Division, Chemistry Industry Association of Canada): Thank you, Honourable Chair Lightbound and committee members.

Chemistry and plastics are Canada's third-largest manufacturing sector, adding \$54 billion and \$28 billion respectively to the Canadian economy. Eighty per cent of the sector's annual plastics production is export-oriented, with the majority destined for the United States.

Our industry is committed to a low-carbon circular economy for plastics. End-of-life plastics represent a lost \$8-billion-per-year resource, which will grow to \$11 billion by 2030. If recovered, this would strengthen our economy and our export potential while keeping plastics out of the environment. Not only does a circular economy ensure we are using our resources efficiently, but it further provides our industry with substantial greenhouse gas reduction opportunities, thus supporting Canada's net-zero goals.

An example is Quebec's success with polystyrene. Companies such as Pyrowave and Polystyvert use advanced recycling technologies to return post-use polystyrene to its molecular origins, making it indistinguishable from virgin plastic, but with a lower greenhouse gas footprint.

A further example is NOVA Chemicals' aspirations of net zero by 2050, 30% polyethylene sales from recycled content by 2030 and a 30% reduction in their scope 1 and 2 absolute CO2 emissions.

I'd be happy to share other examples of Canadian innovation driving the circular economy during the question period that follows my remarks.

You heard in your last committee meeting about the role that extended producer responsibility, or EPR, plays in a circular economy. EPR makes those that bring plastic products and packaging in to the market responsible for their end-of-life management. Industry welcomes this responsibility and is working actively with provinces and territories to develop and implement regulations that will set ambitious recovery and recycling rates.

Although many provinces are in the early implementation stages, B.C. has a very successful EPR. Some highlights include that 99.3% of B.C. households in 183 communities had access to recycling services at no cost to taxpayers. Producers now fund the nearly \$110-million recycling program. In just four years, while recycling has been stagnant across Canada, plastics recycling in British Columbia has increased from 42% to 55%, with 97% of all recovered plastics being processed within B.C., which creates new business opportunities. In 2021, greenhouse gas emissions for the program declined by 20.7%.

There is an important role for the federal government in creating the conditions for a successful low-carbon circular economy for plastics.

The first is investment in recycling infrastructure and innovation, as was reflected in the 2021 ministerial mandate letters for both Environment and Climate Change Canada and the industry department. Unfortunately, that fund has not materialized yet, but it is needed to accelerate innovation and investment in circularity as well as to deliver on other federal policy objectives.

The second area is creating incentives to incorporate recycled content into products. This can take many forms, but the one notably already under development is the setting of recycled content minimums for certain plastic products, which in turn relies on innovation and access to feedstocks to meet recycled content requirements. This, again, links back to EPR and investment.

The journey to a circular economy for plastics in Canada is well under way. We welcome this committee's assistance in framing the appropriate supporting roles of the federal government on this exciting and challenging journey.

I look forward to your questions.

• (1550)

The Chair: Thank you very much, Madam Seaman.

We'll now turn to Glencore Canada for five minutes.

Mr. Peter Fuchs (Vice-President, Corporate Affairs Nickel, Glencore Canada): Thank you, Mr. Chair.

Good afternoon, and thank you to the committee for the opportunity for us to share Glencore's perspective on metals recycling in Canada.

My name is Peter Fuchs. I'm the vice-president of corporate affairs for nickel at Glencore. Joining me today are Alexis Segal, the head of corporate affairs for Glencore Canada, and Marie-Elise Viger, environment manager of North American copper assets and the Philippines, who's based in our smelting operation in Rouyn-Noranda, Quebec.

Glencore is one of the world's largest globally diversified natural resource companies. We are a global company, but with a long history and deep commitment here in Canada. Through the scale and diversity of our industrial and marketing businesses, we responsibly supply the commodities that are fundamental to the building blocks of life and are an important pillar in the Canadian critical minerals value chain.

Glencore is one of the world's leading recyclers of electronics and a major recycler of secondary copper, nickel, cobalt, gold, silver, platinum and palladium. Our operations were among the first to discover how to process end-of-life electronics, and we have been one of the leading recyclers of metals ever since.

Our company plays a fundamental role in the circular economy, giving a second life to these commodities. Our approach is underpinned by Glencore's leading technological expertise, a commitment to customer excellence and embedded sustainability across our business.

To give you a little more colour in terms of what we recycle, it varies from electronics to batteries and other metal-bearing materials, including end-of-life automotive parts and jet engines.

Some of the core assets in Glencore's recycling operations are right here in Canada. As I'm from our nickel business, I will take another moment to describe our recycling capabilities at our integrated nickel operations, and then pass you to my colleague Marie-Elise to speak to you about the copper facilities.

Our smelter in Sudbury, Ontario, is a key part of the global Glencore recycling network. For 33 years, the Sudbury smelter has been safely processing end-of-life materials, production scrap and waste streams. Last year, the Sudbury smelter recovered more than 26,000 tonnes of recycled materials, containing 6,200 tonnes of nickel, almost 2,000 tonnes of cobalt and 1,300 tonnes of copper.

I'm also proud to say that we are making major new investments in the region by investing \$1.3 billion to build the new all-electric Onaping depth mine underneath our existing Craig mine, which will extend our life-of-mine in the Sudbury area to at least 2035.

Now I'll pass you on to my colleague.

• (1555)

[Translation]

Ms. Marie-Elise Viger (Environment Manager, Copper North America and Philippines, Glencore Canada): In Rouyn-Noranda, we have the Horne Smelter, the only copper smelter in Canada. This operation is closely connected to the Canadian Copper Refinery, in Montreal. Combined, these two fully integrated facilities process concentrate from more than 15 Canadian mines, as well as recycled material. One of the notable features of the Horne Smelter is its ability to process a wide range of feeds, including precious and critical metals in end-of-life electronics. The Horne Smelter is already the largest electronic waste recycler in North America.

We are also working to enhance the operations of our existing facilities. Glencore plans to invest more than \$500 million in a major transformative project at the Horne Smelter to make it a world-leading smelter in terms of operations and emissions. This investment will position the Horne Smelter for the future, ensuring its continued contribution to Canada's climate ambitions and leadership in the critical minerals sector.

Mr. Alexis Segal (Head, Government Relations and Communications, Glencore Canada): With respect to zinc, we have the CEZinc Refinery, in Salaberry-de-Valleyfield, the only zinc refinery in northeastern North America. In Montreal, we have a small plant specializing in lead anode manufacturing and recycling. Lead anodes are essential to zinc electrolytic production. We also have a base metal mine in Timmins, in northern Ontario—the deepest base metal mine in the world. The Kidd mine produces copper and zinc concentrates.

In conclusion, Mr. Chair, our company has a 100-year-plus history in Canada and a deep commitment to this country. We plan to work closely with the government to ensure that this strategic asset continues to support Canada and its allies' need for critical minerals.

To that end, we welcome the release of the critical minerals strategy, and we were particularly happy to see the emphasis on recycling and the circular economy in the strategy.

One topic we would like to put to the committee is the issue of certainty around the way recyclable and other inputs to our smelters are handled. Our facilities have capacity to process more supply in Canada. However, in order to sustain and grow our recycling business, we need predictability for the handling and classification of our inputs. For example, Environment and Climate Change Canada is studying the way e-waste is imported into the country. We would suggest to the committee that Canada facilitate the exemption of imports of e-waste from the United States to support the circular economy in Canada and for our neighbour to the south.

We welcome any questions you have.

Thank you, Mr. Chair.

The Chair: Thank you very much.

Ms. Kelleher now has the floor for five minutes.

[English]

Ms. Maria Kelleher (Principal, Kelleher Environmental): Thank you.

Good afternoon, everyone, and thank you for inviting me to speak to the committee.

I want to briefly address the findings of two reports my company prepared that are relevant to the committee's work.

First of all, I'd like to say that recycling is a prominent and integral part of the circular economy, but it is a complicated business. It involves many different types of materials, products, producers, users and other stakeholders. Some materials are valuable, particularly metals, and some are not as valuable. Some products are short-lived, like beverage containers, and some are long-lived, like buildings.

There are three broad user groups or sectors in recycling: residential; industrial, commercial and institutional; and construction and demolition. Different management systems or plans are required for each of the materials, products and sectors.

The preliminary circular economy report card we developed was an effort to document how Canada is faring in the circular economy. We pulled together available information on the recycling of a number of materials in Canada, including paper, scrap metals, glass, plastic, food and yard waste, lumber and wood, drywall, auto hulks, tires, batteries, e-waste and selected industrial residuals. We identified that millions of tonnes of materials are already recycled in Canada. However, we noted a number of information gaps and concluded that Canada needs more comprehensive tracking systems to fully identify our circular economy performance.

The electric vehicle battery is the second thing I want to talk about. Electric vehicle battery cells are made from an anode, a cathode and an electrolyte, all of which are made from critical minerals and metals. They contain lithium in the electrolyte and graphite in the anode, with varying amounts of critical minerals, such as nickel, cobalt, manganese and aluminum used in the cathodes.

While the numbers are small today, the numbers of electric vehicle batteries at end of life will grow over the years, and grow rapidly after the year 2030. Many electric vehicle batteries can have a second life after their first life, once they're no longer suitable for a vehicle. They can be put into energy storage and other applications, which can extend their lives. We already have a few small companies in Canada that do this work, and a number in the U.S.

It should be stressed that Canada, the U.S. and Mexico are basically one market for the auto and recycling sector, and any regulatory or financial barriers that restrict the movement of used electric vehicle batteries across borders for reuse and recycling should be addressed.

Environment Canada's XBR allows electric vehicle batteries to cross the Canada-U.S. border without a permit when destined for research and development, remanufacturing or repurposing. However, if you're crossing the border in either direction for recycling, you need Environment and Climate Change Canada and EPA permits. This prevents the needed electric vehicle batteries destined for recycling from flowing freely.

There are a number of issues around Transport Canada's regulations not being fully consistent with U.S. regulations; these cause challenges for recyclers. Also, there's a 7% duty placed on batteries crossing the Canada-U.S. border if they're destined for repurposing, whereas there's a 3% duty on batteries going in the other direction, from Canada to the U.S. We certainly should have a level playing field in this arena.

We're extremely fortunate in Canada to have a world-leading ecosystem in lithium battery recycling to recover the critical minerals needed to make new batteries and turn them into chemicals that are sold back into the battery supply chain.

Canada's market and main trading partner is the U.S., and any barriers to trade between the two countries in terms of these electric vehicle batteries, which are part of the new economy and the transition to an electrified future—a low-carbon future—need to be addressed.

Thank you. I'd be happy to take your questions.

• (1600)

The Chair: Thank you very much, Madam Kelleher.

Now, to start this discussion, I'll turn to MP Vis for six minutes.

Mr. Brad Vis (Mission—Matsqui—Fraser Canyon, CPC): Thank you, Mr. Chair.

Thank you to all the witnesses.

Before I begin with my questions, at our last meeting—I believe it was on March 29—I moved a motion that “the committee order the department of Industry to provide a copy of all papers, documents and emails related to the Government of Canada investment in Volkswagen to develop a new battery plant in Canada.” I believe the committee reached some form of consensus, Mr. Chair, that the information would be provided in good faith.

Mr. Chair, can you confirm whether or not we received that information?

The Chair: We have not received this information as of now.

Mr. Brad Vis: Okay. Then I'm going to use my time today to move another motion. I move that the committee order the Department of Innovation, Science and Economic Development Canada to provide a copy of the contract signed with Volkswagen Canada, including the total cost for the Government of Canada to develop a new battery plant in Canada in the next 48 hours, before our next meeting.

I'd like to have a vote on that right away.

The Chair: There is a motion on the floor by Mr. Vis. You've all heard the terms.

I see Mr. Fillmore has his hand up.

Mr. Andy Fillmore (Halifax, Lib.): Thank you, Mr. Chair.

Could I ask for a suspension while we review the motion and its implications?

• (1605)

The Chair: I can grant a brief suspension for various MPs to figure out their positions on this. We'll resume in a few minutes. We'll be back very shortly.

Thank you, Mr. Fillmore.

Our apologies are extended to the witnesses. These things happen. The meeting will be suspended briefly.

• (1605)

(Pause)

• (1620)

The Chair: Colleagues, we can resume the committee meeting.

There's a motion on the floor by Mr. Vis. Everyone has heard the terms of the motion. Are there any further comments before we proceed to a vote? If there are no comments, then we will move to a vote.

I see Mr. Van Bynen.

Mr. Tony Van Bynen (Newmarket—Aurora, Lib.): I have a point of order, Mr. Chair.

I'm relatively new to this committee, but is it not the practice to circulate these motions so we could see the motions either on our laptops or...so we could have a closer look at them? My shorthand is not good, but I'd like to have a good understanding of what the motion itself says so that I can give it proper deliberation.

The Chair: Thank you for your intervention. This is usually the practice, but Mr. Vis has the right also to present a motion from the floor. If, however, you have an electronic copy that can be circulated, that would be appreciated. Otherwise, I could ask Mr. Vis to read it again so that we can all see it.

I think I just received it. You probably have, too, Mr. Van Bynen. If you look in your emails, you probably have the written version of the motion.

I recognize MP Gaheer.

Mr. Iqwinder Gaheer (Mississauga—Malton, Lib.): Thank you, Chair.

I'd ask for an amendment to the motion to remove the timeline. I don't think 48 hours is very reasonable. I haven't seen the contract, but I imagine it's not just a one-pager that's been signed with Volkswagen. However long it is, it's probably in one language and it has to be translated to a second language. It has to be verified. There were holidays that came in between our last meeting, so there's only been one meeting since the last one.

I'd ask Mr. Vis, through you, Chair, to remove the timeline.

The Chair: Thank you, Mr. Gaheer.

In looking at the written version that was circulated—correct me if I'm wrong, Mr. Vis—I see no timeline in that version that was just sent. Is this the proper version, or is it the one you read that we are debating right now?

Mr. Brad Vis: I'll just say, Mr. Chair, that we asked over two weeks ago to receive this information. I moved a motion from this committee floor to receive that information, so with all due respect, Mr. Gaheer, it's like you're trying to rag the puck on me.

We had lots of time. I, in good faith, moved my motion last time to get this information, and Mr. Fillmore promised me that we would have it today, but we didn't receive it. I, as you will note, did not put a timeline in the new motion that was circulated.

The fact of the matter is that there are some big numbers floating around about the amount of money the government put forward or has given to Volkswagen to create a new battery plant. This is the only car company that's been charged, in my understanding, under the Canadian Environmental Protection Act laws on emissions. That was within the last seven years. It was Catherine McKenna, the former environment minister, who used those powers under the Canadian Environmental Protection Act.

Now we're in a position where... An unprecedented action was taken in the budget and they said that we'll give you these numbers in due time. Well, we're going to have a vote on the budget pretty soon, and I don't know how much money is going to Volkswagen. I've heard "billions" being floated around, and some of the other numbers being proposed by other countries, before this government came forward with great fanfare to announce this seminal investment, yet this government is afraid to give Canadians the number. Why can't we just get the number? What's the big deal?

I would even take this motion off and just ask for two things: the number of jobs and the amount of money.

I'm not asking for anything inappropriate. If the government stands by their investment, they'll give us the numbers. I don't need obfuscation. We need to have transparency. What I'm seeing here from those two comments is a lack of transparency and a fear of committee members to give Canadians an answer that they deserve.

The motion stands as it is, but we need this information, Mr. Chair. I'm not out of order. This is common-sense stuff. Previous governments have been in this situation before, and they provided information. The parliamentary secretary promised me that he would have it here today, and he didn't follow up with an email or anything or say we need a bit more time or we're redacting certain information. Not a peep. It's like you guys didn't even expect this would come today.

This is a straightforward, good-faith motion on something that the Government of Canada should be proud to share with Canadians.

• (1625)

The Chair: Mr. Vis, I appreciate your intervention. However, that doesn't answer my question.

What is the term of the motion we're voting on? You read something different from what has been distributed.

Mr. Brad Vis: Maybe, Mr. Gaheer, you can give me a proposed timeline. You said 48 hours might be too short. What's your proposal?

Mr. Iqwinder Gaheer: Mr. Vis, I wasn't commenting on the merits of your motion. I just think, practically speaking, that 48 hours isn't very realistic.

Again, it's not a one-pager that was signed with Volkswagen. I'm sure it's 100 pages or 200 pages. Who knows? I'm sure it has to be translated into both languages and verified. It could be partially in German. Who knows?

Mr. Brad Vis: We've had two weeks already. Do you want another week? What do you want to put in there? Give me a number.

The Chair: Mr. Vis, I haven't recognized you. Mr. Gaheer has the floor.

I would ask members to wait until I yield the floor to them to intervene. This is not a debate.

Go ahead, Mr. Gaheer.

Mr. Iqwinder Gaheer: Thank you, Chair.

I know it's been a little while, but there has been only one meeting since the last one at which this was brought up. I ask for good faith on the part of Mr. Vis.

The Chair: I have Mr. Masse and then Mr. Vis, but before we spend too much time, it would be important to know the terms of the motion that's before the committee. The one I have in front of me, which has been circulated, does not have a timeline. Is this the one before the committee right now, Mr. Vis?

It reads as follows:

That the committee order the department of Innovation, Science and Economic Development Canada to provide a copy of papers, including the total cost of the Government of Canada investment and the number of projected jobs to be created by Volkswagen as a result of the Government of Canada investment in Volkswagen to develop a new battery plant in Canada.

Mr. Brad Vis: That is the motion before the committee, but I will accept Mr. Gaheer's amendment to add a timeline.

The Chair: He was proposing an amendment on removing the timeline. That's the motion before the committee.

Thank you, Mr. Vis, for the clarification.

Mr. Masse, go ahead.

Mr. Brian Masse (Windsor West, NDP): Just in the interest of compromise, would one week be sufficient to do that? Then we could get back to our witnesses. I know now it doesn't have a timeline, but we heard 24 hours and 48 hours, so I don't know whether we're going to go through a dance on time.

If we are going to go through a timeline period, then I think one week would probably be reasonable for all parties.

The Chair: Mr. Lemire, go ahead.

[*Translation*]

Mr. Sébastien Lemire: Thank you, Chair.

I also suggest that our discussion take place in camera. I think it's important for parliamentarians to have this information. However, I realize that certain aspects pertain to Canada's competitiveness.

The Chair: Currently, the motion does not stipulate a timeline or going in camera.

Mr. Masse has moved an amendment that we need to deal with before we move on to Mr. Lemire's amendment, which would add a one-week deadline. Once we have dealt with that amendment, we will be able to deal with Mr. Lemire's amendment asking that this take place in camera.

This makes the process more cumbersome than the original motion. Mr. Masse, I understand that you are proposing an amendment that would add a one-week timeline to the motion.

Mr. Masse's amendment is now before the committee.

If no one has anything to add, we will proceed to a vote.

Mr. Vis, you have the floor.

[*English*]

Mr. Brad Vis: I will accept Mr. Masse's amendment to provide an additional week for the Government of Canada to provide the contract signed with Volkswagen Canada, the total cost to the Canadian taxpayers and the number of jobs that will be created through this government investment.

The Chair: Thank you, Mr. Vis.

I gather, from looking around, that the Conservatives are in agreement, as are the Bloc's Mr. Lemire, as well as Mr. Masse. Looking at the Liberals, I don't know if I need to call a vote on this amendment to add one week. I'm trying to see from my colleagues if there is consensus on this amendment or not, and whether I need to call a vote.

Go ahead, Mr. Van Bynen.

Mr. Tony Van Bynen: It's a one-week timeline. Is that correct? That's all it is. Is that correct?

The Chair: We're adding a one-week timeline.

The amendment is to add one week as a timeline to the motion that has been circulated electronically. I see consensus around the table.

(Amendment agreed to)

The Chair: Now we have Mr. Lemire's amendment.

• (1630)

[*Translation*]

Mr. Lemire moved to add that whatever the department produces should be provided to the committee, but not made public. It would therefore be available, in camera, to committee members.

Mr. Vis, you have the floor.

[*English*]

Mr. Brad Vis: With all due respect, Mr. Lemire, I'd be opposed to that, because the purpose of my bringing forward this motion was that the information be made public.

Thank you.

The Chair: Go ahead, Monsieur Masse.

Mr. Brian Masse: I can support the motion, because we could go back to a public meeting right away afterward, depending on what we get back. I'm also worried about getting total redaction of anything coming back to the committee. I don't like going in camera, but I'm willing to start in camera and then decide to go back in public later on if there's appropriateness at that time.

I'm giving the benefit of the doubt and, with the concern Mr. Lemire is bringing forward in good faith, noting that we could just go back in public again if we need to.

The Chair: I'll just give a point of clarification.

[*Translation*]

I believe that what Mr. Lemire is proposing with respect to in camera, is that the results be sent to members' personal email address and that they be considered confidential, as are the draft reports. Of course, under these circumstances, committee members are required not to make public the information they've received.

According to Mr. Vis' comments, I believe he disagrees.

Mr. Perkins, you have the floor.

[*English*]

Mr. Rick Perkins (South Shore—St. Margarets, CPC): I understand that there may be parts of the contract that are confidential, and I assume, regardless of whether we're in camera or whether it's through our private email, the government's going to redact them anyway. Therefore, it's kind of useless to get this information that says how much money has been committed on taxpayers for how many jobs without being able to talk about that publicly. I don't support the amendment if that's what it prevents us from doing.

[*Translation*]

The Chair: I see that the Conservatives oppose the amendment while the Bloc and NDP support it.

Seeing no consensus, we will proceed to a vote.

(The amendment is negated: nays, 9; yeas, 2)

• (1635)

The Chair: It's pretty rare to see the Liberals and Conservatives agreeing on something. I feel like taking a picture.

[*English*]

If there are no more interventions, then I will call a vote on the motion as amended by Mr. Masse, with a one-week timeline.

[*Translation*]

(Motion agreed to: yeas, 11; nays, 0)

The Chair: Thank you for your co-operation.

I apologize to the witnesses who have joined us today. These things happen at committee. We can now return to today's agenda.

Mr. Vis, you have about five minutes.

[*English*]

Mr. Brad Vis: Thank you, Mr. Chair.

To all the witnesses, my apologies for wasting your time with that, but I think it's an important subject, and it's related to this study.

Ms. Kelleher, you mentioned in your remarks that Canada has an excellent ecosystem for lithium battery recycling. Can you explain where those centres of excellence in Canada are or where lithium battery recycling plants are currently located?

Ms. Maria Kelleher: Absolutely. Can you hear me okay?

The Chair: Yes, we can.

Ms. Maria Kelleher: To answer your question, the battery recycling plants are in B.C., Ontario and Quebec. In B.C., Cirba Solutions, which used to be Retriev, has been recycling lithium batteries for 40 years, and they are continuing to evolve their technology to the newer hydrometallurgical processes that provide high-value chemicals to go back into the battery supply chain. In Ontario we have a company called Li-Cycle, and in Quebec, a company called Lithion.

The traditional way to recycle lithium batteries was really to create a black mass that had metals in it and send it to Glencore, which would smelt it and then pull the metals out, the nickel and cobalt in particular. Then they would need to be sent somewhere else to make the chemicals that the battery people want.

However, the new recycling technologies are leading edge, and Canada is a world leader in this area. They actually take the batteries, get all the critical minerals and metals out, and make the chemicals that they can sell back into the battery supply chain.

Mr. Brad Vis: You mentioned that the battery ecosystem as well is largely among Canada, the United States and Mexico. Are there other opportunities, or do these companies that are currently recycling batteries have the capacity to import batteries for processing in addition to any supply from Mexico and the United States?

Ms. Maria Kelleher: You'd have to check with them, but I would say the quick answer is they could certainly scale up to take more batteries. Interestingly, the electric vehicle batteries are lasting so long that the supply will be quite small for a number of years to come. Most of these companies are expecting to process a lot of production scrap, but again, as I say, you would need to ask them. I imagine what they would say is that if you provide them with a bigger supply, they would certainly scale up to process that supply.

Mr. Brad Vis: Thank you.

In the last meeting we had, I was able to ask some officials from, I believe, Environment Canada about exportation licences related to plastic waste, and negative and positive lists of the toxic, in some cases, plastics that would be exported through the United States without really knowing their final destination.

Do you think we have a robust enough system in Canada to understand where all plastic waste originating in Canada actually ends up?

Ms. Maria Kelleher: I did listen to the previous committee's deliberations. I can't really answer that question. You would need to ask someone in Environment and Climate Change Canada who tracks all the exports. That's part of the federal government commitment regarding anything that's exported out of the country. Under the Basel Convention, I think, which was spoken about last time, signatories to that convention have a prior informed consent, so a country can't accept any shipment. You can't send it anywhere unless they have said they'll accept it.

Mr. Brad Vis: Thank you, Mr. Chair. How much time do I have remaining?

The Chair: No more.

Mr. Brad Vis: Good. Thank you.

[*Translation*]

The Chair: Ms. Lapointe, you have six minutes.

● (1640)

Ms. Viviane Lapointe (Sudbury, Lib.): Thank you, Chair.

[*English*]

My questions are for the Glencore officials who are here. I'm the MP for Sudbury, so I know the other Peter from Sudbury.

The critical minerals strategy is important. It's important to us for achieving net zero in electric vehicle batteries, clean energy, information and communication technology, and defence applications. As the world moves towards a lower-carbon economy, a key question on which we must collectively focus is how to build on Canada's comparative advantages. One key action item towards that end is to determine how to best utilize the abundance of resources and technology and experience that exists in this country.

Can you describe for the committee what initiatives Canada has put in place specifically to reuse critical minerals that are in waste?

Mr. Peter Fuchs: Maybe I'll start by saying that at the end of the day, I think we share the goal of increasing recycling capabilities, but in order to get there we need clarity and predictability on things like import rules. For us, it's about having the flexibility so we can act quickly to acquire available feed and ensure that materials that

can be recycled don't end up in perhaps less favourable jurisdictions with less clean recycling facilities.

Alexis, do you want to add anything?

Mr. Alexis Segal: We have the space to double the recycling inputs in Horne and Sudbury. It's not a question of physical capacity. It's more a question of access to the market at the moment.

Ms. Viviane Lapointe: Are there steps we can take to increase the recovery of critical minerals from e-waste? I'm specifically thinking about those higher-value minerals like nickel, copper and gold.

Mr. Alexis Segal: Is the question to increase the e-waste capacity of recycling?

Ms. Viviane Lapointe: No, it's the ability for us to increase the recovery.

Mr. Alexis Segal: At the moment, to be honest, when we take some e-waste, we recover almost everything.

Maybe Marie-Elise can complete that.

Ms. Marie-Elise Viger: Yes, we do have a high capacity of recovery. We are doing some research and development with one of the universities near Rouyn-Noranda to increase the recovery of other critical metals.

Ms. Viviane Lapointe: That's what my question was geared toward. Do we have the technology, or will that technology be developed soon, so we can actually enhance our ability to recover those minerals?

Ms. Marie-Elise Viger: It's research. The timeline is unfortunately not defined. It is something that Glencore does invest in, and we are preparing for the next generation of increased recovery.

Ms. Viviane Lapointe: I find it very interesting. I know that in discussions I've had with Vale and Glencore, there's great interest now in being able to recover minerals through waste products such as tailings and so forth. As you say, there's active research and development under way to look at that.

There was something that I thought was interesting. Canada has the ability to recycle about 14% of its electronic waste. It is comparable, I think, to the U.S. When we look at European countries, that percentage is far lower. Is there something we can learn from those other countries?

Mr. Alexis Segal: Indeed, we know that plenty of recyclables are leaving the continent to be treated elsewhere. It's probably easier for certain products to be sent from the U.S. to India than to be sent from the U.S. to Canada, which is a bit strange, but that's a fact. We have plenty of things to learn to make sure that we're able to yield all the e-waste in North America and funnel it to our top-of-the-line smelter.

Ms. Viviane Lapointe: I'd like to ask the same question to Ms. Seaman. Are there practices or lessons that Canada can learn from other countries?

Ms. Christa Seaman: Absolutely. As we begin looking at what other jurisdictions are doing, Canada is actually advanced, compared to the United States, when it comes to the advancement of extended producer responsibility programs. We're hoping to export that learning.

However, as we look at Europe, there are opportunities to learn from and engage with the different companies and members we have that operate in Europe. We do work with Plastics Europe to understand what is taking place in the EU that is helping the EU to increase its recycling rates.

Again, you need to take into account the fact that there are significant differences in population density. That affects the ability to collect the waste plastic at the economies of scale that are needed. It's to actually support the investment in some of these areas. When we look at what Canada can do to help bridge that gap, it's really going back to having the federal government implement the \$100-million fund to support innovation and infrastructure that was committed in the ministerial mandates in 2021.

• (1645)

[Translation]

The Chair: Thank you very much, Ms. Lapointe.

Mr. Lemire, you have the floor.

Mr. Sébastien Lemire: Thank you, Chair.

I want to thank Glencore Canada for accepting our invitation to participate in this important study on the scrap industry, which focuses specifically on the recycling of metals, plastics and electronics, from a circular economy perspective.

I was born in Rouyn-Noranda. My grandfather Ernest arrived with his father, Eugène, in 1923. It was a little before the first casting in Noranda. So I care deeply about this city. My children are part of the fifth generation to grow up in this town.

That said, something has been bothering at me lately. Is the threat of closing the smelter, used during negotiations with Quebec City, real?

Also, how would you characterize your level of responsibility for the health of Rouyn-Noranda's population?

Mr. Alexis Segal: First of all, our highest priority is the health of our workers and the communities in which our facilities are located. That's the first thing that must be made clear.

Secondly, in our conversations with the Quebec government about the next remediation certification or environmental permit, we did indeed place heavy emphasis on unattainable targets. It's not

reasonable for a company to invest in a plant and operate it when we are given unattainable targets. We insisted that the targets be technically achievable. The target of 15 nanograms per cubic metre in five years, which we agreed upon, is a target we can now achieve. Indeed, over the past 10 years, through a significant investment of over half a billion dollars, we've developed technology in Rouyn-Noranda that will likely make us the smelter with the highest environmental standards on the planet within five years.

Mr. Sébastien Lemire: Thank you.

One of the fundamental aspects, in my view, is the notion of transparency and availability of data. This notion is important to citizens. In Mount Isa, Australia, your company uses a mobile app to allow citizens to see the levels of sulphur dioxide in the air. A similar model was developed in Quebec City, in the Limoilou district, to track red iron oxide dust levels online.

Do you intend to go down this path in Rouyn-Noranda? What transparency measures would you like to put in place for citizens?

Ms. Marie-Elise Viger: Yes, we did. During public consultations on the renewal of the ministerial authorization, we submitted our brief, in which we expressed our desire to create a website to publish our environmental data, which we were already publishing on a quarterly basis, and make it available online at all times. That was even added to the ministerial authorization. So we need to set up a website, which will pull all of our data together and make it available to everyone in a usable format.

We are already working on it.

Mr. Sébastien Lemire: What can you tell us about the legal station that is to be approved? In my opinion, that's one of the central elements. If you move a neighbourhood, if you move a parking lot, if that station moves, it's going to be hard to assess the extent of the improvements over a number of years.

Ms. Marie-Elise Viger: In fact, the station will not be moved outside the buffer zone. It will be moved about 20 metres in order to truly be at the maximum point of emission impact. In addition to this station, four others will remain where they are. So we'll be able to monitor the progress of those stations as well.

• (1650)

Mr. Sébastien Lemire: In Canada, we have no import limits on arsenic content in concentrates, unlike China, for example, which limits levels to a maximum of 0.5%.

In the interest of protecting public health, would you be willing to limit complex concentrates to that same level until improvements at the Horne smelter are completed?

Mr. Alexis Segal: That's an excellent question.

I will ask Ms. Viger to elaborate on the percentage. Indeed, we have been below that number for over 20 years.

Ms. Marie-Elise Viger: In fact, the strength of our smelter is that it takes a multitude of inputs, such as 100,000 tons of e-waste per year, 700,000 tons of concentrates, over 60% of which comes from Canada, and makes it into one product that goes into the reactor, and therefore into the process chain. For over 20 years, we have been below 0.5% in what we initially put into the reactor.

We are able to meet this limit that is seen elsewhere in the world, but directly in our facilities.

Mr. Sébastien Lemire: On a whole other topic, we have often heard in Rouyn-Noranda that the Horne smelter has to import the majority of the e-waste it recycles.

I would like to know how much of the e-waste comes from within Canada and I would like to know the provenance of the rest of the waste.

Ms. Marie-Elise Viger: About 10% of e-waste comes from within Canada, 75% from the United States and 15% from the rest of the international market. We could handle more waste from Canada. It would just have to be transported to the smelter.

Mr. Sébastien Lemire: You have an agreement with Falco Resources for the Horne 5 Project. According to that company, its project would provide 10% of your production with copper concentrate containing low levels of arsenic.

Could this type of project help you decrease your percentage of complex concentrates and perhaps even decrease your emissions?

Mr. Alexis Segal: If we could obtain copper concentrate, we would obviously be interested. In fact, we already have an agreement with Falco Resources to secure that copper. That said, it doesn't change the fact that we have to blend our products. As Ms. Viger just said, what we put into the reactor is always a product with levels below the arsenic limit and that we are able to control. That's why we're investing more than half a billion dollars to maintain that business model, based on taking in product from over 15 Canadian mines, including gold mines, copper mines and zinc mines, and successfully processing all of that in addition to recyclable resources.

Mr. Sébastien Lemire: Thank you. That's all the time I have for now.

The Chair: Thank you, Mr. Lemire.

Mr. Masse, you have the floor.

[English]

Mr. Brian Masse: Thank you, Mr. Chair. Maybe I'll go to Ms. Seaman first.

With regard to our trade agreements, should we include or start to think about having recycling as part of those trade agreements? It's something I've been mulling over.

Without recycling, you can have subsidization of industries with regard to lack of recycling and so forth, with disposal. I wonder about our U.S.-Mexico-Canada trade agreement, or others where we are in a regional area trading back and forth on so many things.

The auto industry has long talked about auto recycling, extended producer liability and so forth. Could you give us some thoughts? If anybody else on the panel outside of the room here wants to also add their comments on this, please think about that, and then I'll go to the room when nobody online wants to respond.

Could you start us, please?

Ms. Christa Seaman: Absolutely.

First of all, I'd like to, through the chair, thank the MP for the very thoughtful question. When we look at the market and the need for feedstock—recycled plastic—for our recycling facilities, the opportunity to keep the borders open and not restrict flow between Canada, the U.S. and Mexico and including it, whether it be in trade agreements....

Ultimately what we'd like to see as a sector is that this isn't a waste but a resource, so we're looking at resource recovery. Looking at trading post-use plastic as a feedstock or as a resource would be extremely helpful as we look at trying to build the economies of scale that we need to support investment in Canada. We know we have a lot of really valuable innovations taking place from a recycling perspective in Canada, and the ability to draw from the U.S., likely starting close to the Canada-U.S. border, would be beneficial.

We need to keep in mind that one of the challenges we have with the transportation of plastic waste is that it's usually fairly light, so you have high transportation costs and greenhouse gas emissions associated with that. As we look at trying to keep the borders open for trade and keep the flow of this new post-use plastic resource open, any agreements we can put in place would be helpful.

Thank you.

• (1655)

Mr. Brian Masse: Thank you.

Aside from Mr. Fillmore—not that I have anything against him, but he'll get his time later—would anybody else online like to add?

Mr. Jean Simard: If I can join in on behalf of the aluminum industry, recycled aluminum is part and parcel of the automotive value chain. It's recycled, it's easy to capture because it's a very well-established market, and it has to flow freely across the border as much as possible to help the industry maintain its decarbonization pathway. I don't think it needs to be enshrined in a free trade agreement, because the marketplace makes things happen all by itself. The only thing we have to be careful about is the extent to which scrap metal could be used as a way in for countries we have problems dealing with in terms of trade, so that's probably the only pre-occupation I would have in terms of scrap metal.

Mr. Brian Masse: Great. Thank you.

If there's no one else online, I'll come to those here in person. With regard to the United States and subsidies for industry, what's the difference within your sector right now on the U.S. side? Is there anything going on right now? I'm curious as to what they're getting.

There's "Buy America" and Buy American, and there are all kinds of other acts, and then there's now the new one Biden put out too. I'm wondering whether your sector is impacted by any of this. Please explain how.

Mr. Alexis Segal: The IRA, the Inflation Reduction Act in the United States, is really generous and ambitious, but we don't fully know how it will be rolled out.

Investors always pick where it's most profitable to invest. Canada can play that game, but we need to have supports that are in the vicinity of what the Americans propose. It's clear that we can be part of the friendshoring that is coming. I think we should look at how we can leverage this friendshoring to increase Canada's attractiveness for major investment in the mining, smelting and refining of critical metals.

Mr. Brian Masse: I think one of the greatest mythological creatures in North America is the free market economy. We don't see it in the United States at all. I guess we'll find out a little bit more, because I haven't seen it either.

I'll give you a practical example. In the auto sector where I come from, they're going to require some of the contracts to have American content, reshoring some of our contracts. It's not even just companies, but contracts are going to get reshored because if they want to get some of this money, they have to have that content.

In the tool-and-die mould-making sector, for example, we've already seen some companies having to relocate won contracts to other companies, because they have the percentage there when they go back and ship it. This is going to get out of control, and it's going to get more complicated.

Then having those companies even break that information down and be compliant on a regular basis is something that's really just concerning.

Please go ahead.

Mr. Alexis Segal: It's difficult to comment on this because Glencore is a worldwide company. By principle, we'll promote free trade. That's part of our DNA, so it's really difficult to comment more than that.

• (1700)

Mr. Brian Masse: Yes, we need fair trade.

Thank you, Mr. Chair. Those are my questions, and I know my time.

[*Translation*]

The Chair: Thank you very much, Mr. Masse.

[*English*]

Next I have Mr. Williams for five minutes.

Mr. Ryan Williams (Bay of Quinte, CPC): Thank you very much, Mr. Chair.

I want to direct some questions to Ms. Seaman.

We've spent a lot of time talking about industry-led initiatives in the recycling economy. Can you tell me a little about how the plastics division of the Chemistry Industry Association of Canada supports that statement, or can you expand on that statement at all?

Ms. Christa Seaman: We have a lot of industry-led initiatives, whether they be at a company level... A lot of the drivers for change we've seen have been coming from consumer demand, so we have companies such as Polystyvert and Pyrowave, which I spoke about, that have said that they've heard that polystyrene is an issue and that they want to find a way to collect and recycle it. They've been working on that.

In fact, Quebec has a circular economy for polystyrene, which is why polystyrene will be added to their extended producer responsibility program in 2025.

We also have other projects and programs in place. We had an initiative that our members supported in London, Ontario, the Hefty EnergyBag. Unfortunately, because the end markets didn't develop as fast as we would have liked, that project did sunset and did not go beyond the pilot scale.

There are other initiatives. The Chemistry Industry Association of Canada was one of the founding members of the circular plastics task force, which is a consortium of organizations working on implementing, testing and piloting circular plastics projects for collection and recycling of flexibles. Think of your Saran wrap and stand-up pouches for packaging.

We have other initiatives. We have a collaboration that we're working with—

Mr. Ryan Williams: Thank you so much. I only have so much time.

I want to focus on what the Chemistry Industry Association of Canada is worth. I guess you can focus on the plastics division. How many jobs are there, and what is the GDP for Canada at this point?

Ms. Christa Seaman: In my opening remarks, I mentioned that the plastics industry is a \$28-billion resource. It adds \$28 billion to the Canadian economy.

As for jobs, we directly support over 100,000 jobs in Canada.

Mr. Ryan Williams: Thank you.

What kind of support, either financially or policy-related, do you get from the federal government?

Ms. Christa Seaman: We do engage with the federal government on a regular basis across all of the policies that they are bringing forward around a circular economy.

We've engaged on the recycle content minimums and—

Mr. Ryan Williams: Sorry.

Do you get funding from the federal government?

Ms. Christa Seaman: CIAC itself does not directly get funding. Our members do work through ISED, the strategic innovation fund, as well as—

Mr. Ryan Williams: Thank you.

Just comparing to the Americans, do you know if the Americans fund or support the industry in the U.S.?

Ms. Christa Seaman: They do. In fact, we heard the reference just a moment ago to the IRA in the U.S. We're actually finding a lot of the decisions from our members to invest, whether it be in Canada or the U.S.—

Mr. Ryan Williams: I'm so sorry. I have just so much time.

Can you tell me how much investment we've actually had in the chemical sector in Canada, in the plastics division, in Canada, in the last six years, versus what you think the Americans have had?

Ms. Christa Seaman: That's a fantastic question. I would love to get back to you with the—

Mr. Ryan Williams: If you could submit that in writing, that would be great.

The point I'm getting to is that I think we really support industry-led initiatives and ensuring that if we're doing circular recycling, it comes from the industry and that recycling of plastics in Canada gets supported in that for other things that we've talked about earlier, like investment in Canada, international trade, jobs and GDP.

The big story is that when we go to the grocery store right now, plastic bags, for instance, have been banned provincially. That's the plastic bag your bread is wrapped in. Your jug of milk is in plastic and your sandwich is wrapped in plastic.

As my last question to you, can the plastic division of the Chemistry Industry Association of Canada actually do more with support to eliminate or circulate plastics, meaning that it's better for the environment, if there's more support from the federal government?

• (1705)

Ms. Christa Seaman: Yes, there is absolutely more the industry can do to support a circular economy. We are eager to work with the federal government and provincial governments to see those policies and projects implemented and take place.

[Translation]

The Chair: Thank you very much.

Mr. Van Bynen, you have the floor.

[English]

Mr. Tony Van Bynen: Thank you, Mr. Chair.

I would like to just clarify where the industry sits in terms of the life cycle of electronic waste.

You process materials that show up at your loading dock. Where does that come from?

Ms. Marie-Elise Viger: We have two centres in the United States. They are recycling centres. They receive the material, prepare it, and then ship it to the Horne smelter.

Mr. Tony Van Bynen: Where do they receive that material from?

I'm just trying to find out.

Ms. Marie-Elise Viger: It's mostly from the States.

Mr. Tony Van Bynen: But what industries?

Ms. Marie-Elise Viger: You have the automotive shred that they receive. There's also some waste from other recycling sites for electronics and copper scraps. A big...

Mr. Alexis Segal: One example is Intel. We have a centre in San José. We receive the circuit boards from Intel. What we can provide Intel is that we can track the destruction. The reason they go through us is that we can provide a certificate that what they give us is protected and the data that is hidden in the circuit board is protected.

It's another example of the service we provide.

Mr. Tony Van Bynen: Yes.

What I'm interested in knowing is the best way for the government to hold corporations accountable for the waste that they generate with their products or ensure that they are manufacturing products that are able to be reused or recycled.

I can't imagine that your industry would want to see a reduction in waste, because it takes your production stock away from you, but knowing what you see and what you receive, what can the government do to have people reduce the amount of waste that comes to you?

Mr. Alexis Segal: I think the reduction of waste is a good thing for sure. It could easily be compensated for by increasing our market share. If we recycle 100% of our waste in North America, we can grow our business by far, even though we reduce by 50% the total waste. It doesn't go one against the other. I think that it's the right thing to do.

We are only part of the solution. The reuse is as important as the recycling. What we can do is recycle, and we're good at that.

Mr. Tony Van Bynen: What role do the consumers play in ensuring that manufacturers are producing products that can be part of the circular economy? In a previous meeting, I suggested that if someone received some materials at the retail level, they simply un-pack it and leave all of it at the retail level, because that puts pressure back on the retailer to deal with leftover waste or surplus packaging.

What can be done at the consumer level, from your perspective, or are you at more of a high level?

Ms. Marie-Elise Viger: One of the major things is, first, that people, once they reduce their consumption and reuse, the last step would be to recycle, but to recycle it in a facility and not throw it in the garbage.

It's to make sure that their end-of-life electronics reach a recycling centre, where they're broken apart and the plastic goes to the recycling facility for plastic and the metal part goes to a smelter and other recycling facilities.

• (1710)

Mr. Tony Van Bynen: I want to stay with the packaging a bit.

I just did a tour of a plant that uses pulp products, which uses some of the electronics in there. Are you seeing much of that in your industry, the use of pulp containers to hold the electronics inside the box, rather than plastic or styrofoam? Has there been any progress in that type of packaging?

Ms. Marie-Elise Viger: It is a challenge that we're looking at. We receive some material in what we call super sacks. They can hold a tonne. It is one of the challenges to make sure that they can be recycled, as they still have some metallic content.

Mr. Tony Van Bynen: You also talked about the importance of a North American market or a "friendshore".

I see that the European Union has set out some directives—I think it was in 2012—that require the separate collection and appropriate treatment of electronic waste and that set targets for collection, as well for recovery and recycling. The directives help European countries fight illegal waste exports and reduce the administrative burden by calling for the harmonization of national electronic waste registries and reporting formats.

To what extent would that help the industry, and to what extent would that influence the quality of the materials you receive? Would that reinforce the market you feel you need to have the...?

Mr. Alexis Segal: It's difficult for us to comment on public policy. The only thing we know is that in Europe, they are performing better than in North America in terms of recycling. That's the only comment I will make at this stage.

Mr. Tony Van Bynen: I think the benefit we would get now would be....

What are your recommendations that should be considered if we are working on public policy? I know that may not be your responsibility, but what would your suggestions be to improve policy so that it's more effective and so that we achieve these goals or better goals?

I think we all agree that our goals are pretty pitiful in relation to Europe. What would you recommend we consider, if there's a recommendation for policy change?

Mr. Alexis Segal: One recommendation is to know that there's a difference between what is waste and what is a product is treated at the border. If you pay for something, my sense is that it's a product. If you get paid, it's waste. We paid for all the stuff we received.

I think we need to clarify it. It's a bit like what we said in our presentation. We have to bring more predictability in the way recyclables cross borders, not just in North America but also between the rest of the world and Canada.

Ms. Marie-Elise Viger: I would like to add that for Europe, it's the WEEE regulation. The Horne smelter is certified to receive materials, so 15% of our feed comes from Europe under the WEEE agreement because we are certified.

For sure, if it's a Canadian obligation to have a similar structure, it would be advantageous to recycle within Canada.

Mr. Tony Van Bynen: That would help the industry.

Thank you.

I believe I'm out of time, Mr. Chair.

The Chair: You are. Thank you, Mr. Van Bynen.

[*Translation*]

I now give the floor to Mr. Lemire.

Mr. Sébastien Lemire: Thank you, Chair.

I will carry on with Glencore Canada's representatives.

The Centre technologique des résidus industriels, or CTRI, the Cégep de l'Abitibi-Témiscamingue and the Université du Québec en Abitibi-Témiscamingue, or UQAT, through its Institut de recherche en mines et environnement, or IRME, have significant research expertise in the mining field, particularly with respect to industrial waste.

Historically, let's just say that you don't necessarily have a reputation for providing exemplary collaboration with the institutional community. Currently, and going forward, what kind of collaboration would you be willing to develop with these institutions? How could these resources help you perhaps go further in achieving your ambitions in terms of investment performance and reducing the level of toxic materials in Rouyn-Noranda's air?

Mr. Alexis Segal: We are working more and more with institutions of higher learning. Ms. Viger could provide some examples.

Ms. Marie-Elise Viger: Absolutely. In fact, Glencore Canada is contributing \$2.5 million towards funding the pavilion that will be built.

There is a group of mining industry and research partners called the Mining Innovation Zone, or MIZ, which includes CTRI, which you mentioned, UQAT and even other universities further afield. The smelter and Glencore Canada are part of that. We are included in the project application, which would bring together a variety of community partners to take the research further.

• (1715)

Mr. Sébastien Lemire: How important do you consider the establishment of the MIZ in Rouyn-Noranda and Abitibi-Témiscamingue?

Mr. Alexis Segal: We think it is an excellent initiative. It is clear that Abitibi-Témiscamingue has an advantage and a mission throughout Quebec and Canada. The proximity between Abitibi-Témiscamingue, Northern Ontario and cities such as Sudbury and Timmins would give this mining innovation zone an influence that could quickly go beyond Quebec.

Mr. Sébastien Lemire: In particular as regards circularity.

I don't have much time left, but I would be remiss if I did not ask you about studies on biomonitoring. You've questioned these studies several times over the past years.

What would it take for Glencore Canada to recognize a biomonitoring study?

How can we get solid and concrete scientific evidence as a starting point for discussions on the public health data from Rouyn-Noranda?

Mr. Alexis Segal: For several years, we have been asking for a complete biomonitoring study that would include several criteria such as fingernails, urine and blood, that would be carried out over several months with samples supervised by independent neutral experts, and whose methodology would be published in one of the most recognized scientific journals in order to give the most information possible.

There is a lot of talk about transparency, but there is one thing we can do quickly, all together, if we work on it. It is to do a complete, rigorous, scientific and published biomonitoring study. That is also part of transparency. We are fully in favour of this, which we have asked the authorities to do on several occasions.

Mr. Sébastien Lemire: I'm pleasantly surprised.

In short, let me say, as I have often done over the past few years, that I live in the Sacré-Coeur neighbourhood, which is just a few metres from the Notre-Dame neighbourhood, and I would definitely contribute to those efforts.

The Chair: Thank you very much, Mr. Lemire.

Mr. Masse, you have the floor.

[English]

Mr. Brian Masse: Thank you, Mr. Chair.

I'm going to follow up with Glencore.

With regard to research and development, how much is that of your overall revenue? What do you put into that? Do you use SR and ED tax credits from Canada?

Finally, where does your research and development mostly come from? Is it in Canada or is it abroad? What do we need to do differently if we don't get somebody to do research and development here?

Mr. Alexis Segal: I would like Peter to talk about XPS .

Mr. Peter Fuchs: Yes, certainly.

In Sudbury, Ontario, XPS, or Expert Process Solutions, is a test work centre where we're doing quite a lot of work on recycling capabilities. It's looking at lithium ion batteries, for example, and at how we do more of them and how we get them to work well with our current processing.

Certainly we're looking very closely into research and development and are eager to do more of it as well.

Mr. Brian Masse: Do you have a percentage set for this?

I want to follow up with how you would rate Canada. You don't have to say that we're crappy or whatever; I just want to know

whether we're competitive with regard to doing the research and development here or if we're out of step with another country, perhaps. Maybe we're not. I don't know, but I'd like to get a lens on that.

Mr. Peter Fuchs: As I said, we certainly have the capabilities and the technicians. They are doing really in-depth, decent research here in Canada.

We'd have to come back to you on where we sit from a Canadian perspective.

Mr. Brian Masse: Yes, I'd be curious. I'm not looking for a critical analysis; I'm looking for a constructive way, because we have the SR and ED tax credit program and so forth. You probably exercise some use of that, but it's not the most nimble program at times and it's very difficult.

If you could get back to us on how we fit into the overall picture across the world, it would be appreciated.

Ms. Marie-Elise Viger: I don't have the numbers, but, for example, the Horne smelter is really the birthplace of several innovations. If you look in school books, you'll see the Noranda reactor and Noranda converter. Those are all innovations that were done at the Horne smelter. Even now, the new smelting process, which doesn't exist anywhere else in the copper industry, is being developed right here in Canada.

• (1720)

Mr. Brian Masse: That's good and helpful.

I'd love to hear, and I'm just trying to figure out.... I know my time is almost up.

It is emerging, especially with some of the critical minerals we have. That's also going to change quite a bit. We'd rather be in the forefront if we could, or at least address some holes if we have them, or how others are looking at this.

Mr. Alexis Segal: You know that in Sudbury and Rouyn, we're good at researching, and we tend to be a bit too humble.

Mr. Brian Masse: I've got a lot of friends in Sudbury. I know that. It's a good place, 100%. Thank you.

Thanks, Mr. Chair.

The Chair: Thank you very much.

[Translation]

Mr. Gagné, you have the floor.

Mr. Bernard Gagné (Montmagny—L'Islet—Kamouraska—Rivière-du-Loup, CPC): Thank you, Mr. Chair.

My question is for Mr. Simard.

You said something earlier that I think is important, namely that 50% of the material containing aluminum is not recovered. What do you mean by that? Can you give us the real definition of “recovered”, in context, and how we could change that?

Mr. Jean Simard: Thank you for the question.

In fact, we recover certain percentages depending on the source of the materials. In the residential, commercial and institutional sectors, for example, we recover 35% of residual materials. In the case of cans, we recover 66% of these materials. In the shipping sector, the recovery percentage is between 80% and 90%, and in the construction sector, it's about the same. Of all these volumes, 50% of residual materials are not recovered.

The situation is like this because of technological problems. Very often, it is a question of material contamination. In fact, in the containers we recover, there may be two or three more materials than aluminum. Dividing these materials can then pose a technological problem when it comes to isolating the aluminum, which generates additional costs. As I said at the beginning, you end up with volumes that, because of the low critical mass in Canada, are not suitable for recovery.

So we are dealing with contamination and multiple materials. In the automotive industry, for example, there is a metal called zorba, which contains multiple materials. Once this metal is shredded, each of the materials must be isolated and recovered. Again, there is waste.

So it's both a technical problem and a critical mass problem. This means that research is needed to develop technologies that will optimize the recovery stage, and perhaps technologies that will allow small volumes to be processed economically. However, this is a very big challenge.

Mr. Bernard Généreux: Mr. Simard, research is very strong in the Rouyn-Noranda region, as is the Saguenay-Lac-Saint-Jean region in the development of aluminum and the recycling of materials that contain it. Research has been going on for many years in your region. I imagine that you are from this region, with a name like Simard.

Do you feel that industry and the federal government are working sufficiently with industry to move research in this direction?

Mr. Jean Simard: This is also a question we ask ourselves, as we are focused on achieving results.

Again, I come back to the systemic and structural problem in Canada: we don't have a critical mass. We get a lot of requests from entrepreneurs in the Saguenay region, among others, who dream of setting up a system to manufacture aluminum cans from recycled aluminum, as is done elsewhere. But we don't have the critical mass.

In the United States, more than 100 billion cans are consumed each year. In Quebec, about 1.3 billion cans are consumed during the same period. That sounds like a lot, but it's not enough. We are far from the break-even point. Several years ago, we made calculations to set up a centre that would have benefited from the potential critical mass in Quebec, but that would have generated annual losses

of \$20 million, even if we got volumes from outside Quebec and elsewhere in Canada.

In my opinion, we need to focus on areas where we can make a difference, such as in other sectors where very good research is being done, for example in Saguenay, in the field of aluminum.

We must therefore be prudent in our investments and focus on areas where it counts.

• (1725)

Mr. Bernard Généreux: Thank you very much.

Ms. Viger, you say that, at Glencore Canada, you use about 15% of Canadian materials in the processing that you do and that you would like to use more. What could be done in Canada to use as much Canadian material as possible?

Obviously, we'd like to know what more the federal government can do to support processing, recycling, etc. What more could the government do to help you get more Canadian materials or to give you permission to get more?

Ms. Marie-Elise Viger: That's a good question.

As it happens, Environment and Climate Change Canada is revising the import-export policy, but that really applies to outside of Canada. Certainly, if it becomes easier for materials...

Mr. Bernard Généreux: When you talk about the outside world, you are talking about the countries where you are going to source your products. Is that right?

Ms. Marie-Elise Viger: Yes, that's right.

In fact, 75% of the electronics we recycle come from the United States, while only 10% come from Canada. If regulations make it more difficult to import products from outside the country, it will certainly slow down. However, if it's that easy to send products out of the country, you're just skirting the issue. What is produced in Canada will end up elsewhere. So it would be nice to facilitate and encourage recycling within Canada.

Mr. Bernard Généreux: The data for Canada provided to us by our analysts is from 2016 to 2019. Canada recycles 14% of its e-waste, for example, while some countries, such as Croatia, Finland, the United Kingdom and Sweden, recycle between 50% and 75% of their e-waste. These are much smaller countries than Canada, but I imagine they are able to process these materials themselves.

Do they do the processing locally, or do they export these materials for processing?

Ms. Marie-Elise Viger: I don't know what all the countries are doing, but we also receive material from Europe. We have confirmation of compliance with the Eurometals standard, which makes our foundry an accepted recycling site for the end of life of these materials.

Mr. Bernard Généreux: Are there countries that are more sensitive to the needs of the industry in terms of the quality of the materials that are sent to you, or do they send them to you and let you sort it all out?

In general, if you compare materials from the United States and Europe, for example, are some materials better than others?

Ms. Marie-Elise Viger: We receive a variety of materials. All materials are sampled and analyzed to see if we can accept them and how much of them can be fed into the foundry, to ensure that the foundry always has the same volume of inputs.

The Chair: Thank you very much, Ms. Viger.

Thank you, Mr. Généreux.

Mr. Gaheer, you have the floor.

[English]

Mr. Iqwinder Gaheer: Thank you, Chair.

Thank you to the witnesses for all their contributions to the committee so far.

My first few questions are for Monsieur Simard.

Can you speak about the recyclability of aluminum and whether it loses any of its properties when it's melted and used again, and generally whether it's a good product to use?

Mr. Jean Simard: Aluminum, some will say, is eternally recyclable or indefinitely recyclable and doesn't lose its key characteristics. It's a very sustainable material.

One of the key benefits of recycling aluminum is that you need only 5% of the energy that is required to do primary metal when you recycle aluminum. Thereby, not only do you reduce by 95% the use of energy, but you also reduce emissions in the order of 95%, which is a great achievement in terms of greenhouse gas emissions.

There are complexities. As I mentioned earlier, some of the aluminum that comes back into the system needs to be segregated in terms of alloys—original alloys or series—and cannot necessarily be repurposed for the same use or for another use. There is an extra level of complexity to ensure you can optimally recycle all the metal that comes back into the stream, but increasing the use of recycled aluminum in the future to produce new material is certainly part of the world's aluminum pathway to decarbonization.

One of the key examples is what we now call “hybrid” smelters, which we will see more and more of. They are smelters producing primary metals, but they use their dilution factor to increase the use of recycled aluminum, and by doing so, they reduce their carbon footprint at the end.

● (1730)

Mr. Iqwinder Gaheer: Thank you.

I'm not an expert in this area. Could you please explain the difference between the “alloys” and “series” terminology?

Mr. Jean Simard: The series is a type of aluminum. You have the 4,000 series, the 5,000 series and stuff like that. Basically, if you are using aluminum in an aggressively saline environment,

such as an offshore situation, you will need a specific series that will not corrode in that aggressively saline environment.

Alloys use other materials, such as magnesium or lithium, depending on the final use, such as for aerospace purposes or in the construction environment. It all depends on what the end use is when you are looking at the material.

Mr. Iqwinder Gaheer: That's great.

How can we improve the recovery rates for aluminum, especially in the sectors where it's low? You mentioned some of them during your opening testimony.

Mr. Jean Simard: I would say the most strategic challenge, right now, is the sorting of aluminum coming from streams such as automotive or consumer packaging.

You either avoid using multiple materials, including aluminum, when designing packages—in order to enable tracking the aluminum and bringing it out of the stream—or have the challenge of sorting the various materials downstream and being able to disassemble the materials from one another. A good example is the Tetra Pak container, which has layers of different materials. It's a very complex type of container to deal with when you want to recycle the materials optimally.

It can be in the design, which is smart to do. You can do it upstream. You address the issue when you design the container, package or object. If you don't do that, you have to accept the challenge of dealing with it downstream at the end, when it's very complex. It has been used, so there are contamination problems and stuff like that. You have to choose your challenge.

The Chair: Thank you, Mr. Gaheer. That concludes our second round.

Colleagues, we have until 5:40—that's six more minutes—so we're not going to start the third round. I will simply open the floor should any members have more questions.

I recognize Mr. Perkins, then Mr. Lemire.

Mr. Rick Perkins: Thank you.

Ms. Kelleher, I have a quick question. I believe you're the appropriate person to ask. I understand that in the production of lithium batteries for e-vehicles, the production of the cathode produces about 80% waste in tailings, which goes into landfills.

Can you confirm whether that's the case?

● (1735)

Ms. Maria Kelleher: Thank you for the question.

Unfortunately, I can't answer that question, because I'm not a mining person. You would need to direct that to someone involved on the lithium mining side or the cathode material side. I'm more on the recycling side.

Mr. Rick Perkins: Do any of the other panellists have any knowledge in that area?

Mr. Peter Fuchs: No. Unfortunately, we're not the technicians here, but we can certainly make someone available for you.

Mr. Rick Perkins: Thank you.

Ms. Seaman, in my past life, I was in retail and involved in the issue of plastic bags. One thing I learned is that there's actually no such thing as a biodegradable bag, even though it's marketed that way. Really, it's just a chemical additive that breaks the bag up into small pieces, but the plastic still has the same shelf life.

Is that correct?

Ms. Christa Seaman: There are multiple and confusing definitions. You have biodegradable, you have compostable and you have oxo-degradable. The one that you were describing is really oxo-degradable: An additive goes in and creates a kind of stained glass. The additive is the lead in the stained glass, and as it decomposes, you do get the microplastics. However, there are technologies out there, and there are plastics out there that are fully compostable in either a home or an industrial recycling setting.

I think that was early days, but with technology today, my response is no, that is no longer truly the situation.

The Chair: You can ask one last question.

Mr. Rick Perkins: This is for the the Glencore witnesses. I'm not sure who would be the right person to answer this question.

You're acquiring or buying plastics that then go through a recycling process. Is that part of the process? If it is, in your dealings with those who stream the recycling, do they share with you, at least in Canada, how much of the plastic that goes into that stream is actually garbage, such as the plastic clamshells that cookies and stuff like that often come in when we buy things in retail?

Ms. Marie-Elise Viger: We do not purchase plastic. We purchase electronics. For instance, some plastic is stuck to the metal in circuit boards, so we receive that type of plastic in the process.

Mr. Rick Perkins: Thank you.

[*Translation*]

The Chair: Thank you very much, Mr. Perkins.

Mr. Lemire, you have the floor.

Mr. Sébastien Lemire: Thank you very much, Mr. Chair.

I have some more questions for the representatives from Glencore Canada.

Some of your inputs are waste materials purchased from other companies, here and around the world. These waste materials may be considered hazardous, including sludge containing concentrations of elements such as lead.

What does Canada get out of this? How important is this to the environment across the country? What waste materials remain in Rouyn-Noranda afterwards?

Mr. Alexis Segal: I will answer part of the question and let Ms. Viger answer the one about residual materials.

In the case of anode sludge, for example, the price of a barrel is the same as that of a Ferrari. So it's not waste, it's a valuable product. In fact, Canada recovers silver, gold, platinum, palladium, tel-

lurium and bismuth. These are the very elements and metals that we need. In fact, they are very valuable and we take great care of them.

That said, when they are processed, there are sometimes residues. Ms. Viger could tell you about that now.

Ms. Marie-Elise Viger: Absolutely. In the residues left by the process, there is slag.

It is recycled directly on site, in the concentrator. Copper and precious metal remains are recovered. The part that is not useful is made up of mining residues such as those found in mines. These residues are sent to a tailings facility.

• (1740)

Mr. Sébastien Lemire: I would like to address, from a circular economy perspective, the production of batteries for electric vehicles, which requires arsenic and sulfuric acid. These are, of course, components that you produce.

Since these materials are important in the process, I would like to know how this could help to integrate the Horne Foundry into the industry.

Mr. Alexis Segal: It is not widely known, but the Sudbury smelter, the CEZinc refinery in Salaberry-de-Valleyfield and the Horne smelter are the largest producers of sulfuric acid in Canada.

Sulfuric acid is very useful in everyday life, whether it's for pollution control, fertilizers, pharmaceuticals, the food industry or to make spodumene, or lithium hydroxide. We are also in this market and we sell sulfuric acid to lithium companies that need sulfuric acid to advance the process.

Mr. Sébastien Lemire: Thank you.

I'm coming to the end of my remarks, but in closing, I'd like to know if, in the event that the committee would like to go onsite and visit large recycling facilities, you would be willing to have us come by and give us a more detailed presentation of the projects related to investments, including the PHENIX project.

In my younger days, I was a tour guide at the Horne Foundry, and I could, if you like, play the role of host.

In any case, I think it could be a very enlightening experience for our committee.

Mr. Alexis Segal: I'm sure you could. I'm not sure we're going to have you as a guide, but we're willing to entertain people who want to learn about the crucial role the Horne Foundry plays in recycling.

The invitation also applies to Sudbury, which does roughly the same things we do.

I would also point out that nickel and copper produced in Canada have the lowest carbon footprint in the world. We should be proud of that.

We invite you to come and see these gems of the industry, whose CO₂ emissions per ton are well below the world average. We are simply the best in the world.

Mr. Sébastien Lemire: Thank you.

The Chair: Thank you, Mr. Lemire.

We heard your proposal. We'll follow up on that when the time is right.

I would like to thank all of the witnesses for their participation in this committee meeting today.

Again, my apologies for the late start to the meeting.

The meeting is adjourned.

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