HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

44th PARLIAMENT, 1st SESSION

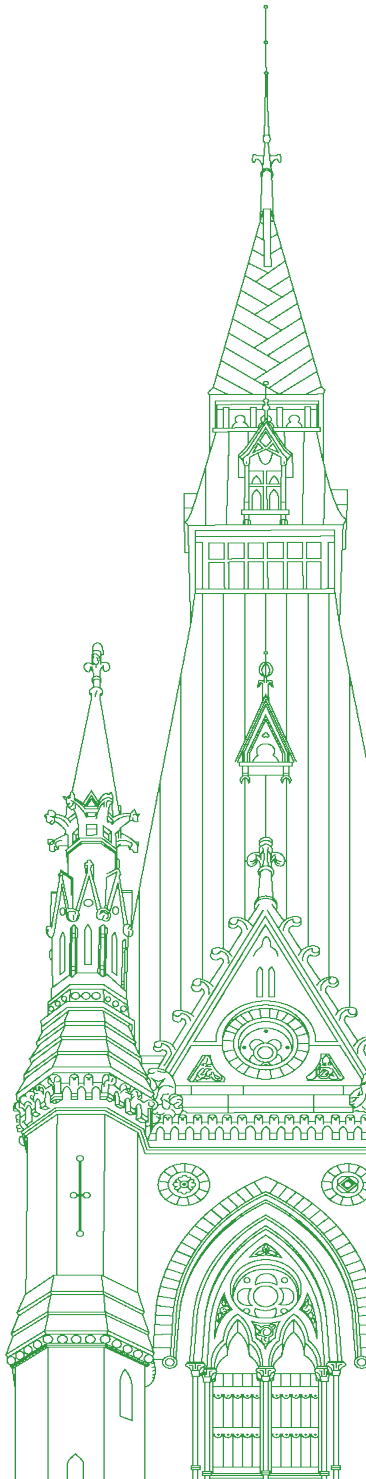
Standing Committee on Industry and Technology

EVIDENCE

NUMBER 068

PUBLIC PART ONLY - PARTIE PUBLIQUE SEULEMENT

Monday, April 24, 2023



Chair: Mr. Joël Lightbound

Standing Committee on Industry and Technology

Monday, April 24, 2023

● (1600)

[*Translation*]

The Chair (Mr. Joël Lightbound (Louis-Hébert, Lib.)): Good afternoon, everyone. I call this meeting to order.

Welcome to meeting No. 68 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.

I'd like to thank the witnesses who are joining us. I apologize for running late. I note, at the request of Mr. Lemire, that Mr. Masse is to blame for this delay because he requested a division of the motion on Bill C-27.

[*English*]

Brian, it's your fault if we're late today.

Some hon. members: Oh, oh!

The Chair: I wanted to stress that for the public, and for our witnesses. So yes, the NDP is to blame.

Thank you for your patience and for bearing with us. Even though we have a shorter time, I'm sure it's going to be interesting and appreciated by members.

[*Translation*]

From the Canadian Steel Producers Association here in Ottawa, we have its President and Chief Executive Officer, Ms. Catherine Cobden. We also have, by video conference, Ms. Amélie Côté, Source Reduction Analyst at Équiterre. Lastly, with us here in Ottawa, we have Kiril Mugerman, President and Chief Executive Officer of Geomega Resources Inc.

Without further ado, I'm giving the floor to Ms. Cobden for five minutes.

Go ahead, Ms. Cobden.

[*English*]

Ms. Catherine Cobden (President and Chief Executive Officer, Canadian Steel Producers Association): Thank you.

Chair and members, thank you very much for the opportunity to appear here today to share the perspectives of Canadian steel producers on the recyclability of steel and the role that the steel industry plays in supporting a circular economy.

To start, Canada's steel sector supports 123,000 jobs directly and indirectly across the country, and plays a strategically vital role in the North American economy. We are a critical supplier to many key North American sectors, including automotive, energy, construction and various general manufacturing applications.

Canada's steel producers make some of the greenest steel in the world, but we're not standing still. Since announcing the CSPA's 2050 net zero aspirational goal a few years ago, we have seen impressive investments announced at two Canadian steel plants that will result in industry-wide emission reductions of over 45% by 2030.

Canadian steel producers are advanced manufacturers of a 100% recyclable product that can be found all around us, from domestic appliances to vehicles to food cans to bridges to buildings and so much more.

I'd like to cover several key points with you today. First is the recyclability of steel, which I'll get into in a bit more detail; the use of recycled steel by Canadian steelmakers; the role of recycled steel in our decarbonization strategy; and finally, the enabling role that we play in all metals recycling and the circular economy.

Steel is the most recycled product in the world. World Steel estimates that since the turn of the last century, over 25 billion tonnes of steel have been recycled, offsetting 35 billion tonnes of iron and 18 billion tonnes of coal, respectively.

Steel can be recycled infinitely without losing key properties. It is also strong and permanent, and offers significant benefits to a wide range of applications. Through sophisticated metallurgy, all types of recycled steel can be modified and recreated to make new grades of steel meeting the exacting specifications of the marketplace. Finally, steel is magnetic, which is actually an important feature. It makes it very easy to separate this highly valuable material from recycling and waste streams.

Globally, steel recovery rates are very impressive, with about 90% recovery from the automotive and heavy equipment sectors, 85% from construction and 50% from electrical and household appliances. For our part, the Canadian steel industry is a significant user of recycled steel. We presently total our domestic recycled steel consumption at about 6 million tonnes a year. We're recycling significantly.

Our industry's decarbonization journey will involve a range of approaches and projects, but increasing recycled steel use in steelmaking is one of the pathways being undertaken. It's really dependent upon the company's product and market requirements. Approximately every tonne of scrap steel that's used results in a saving of about 1.5 tonnes of CO2 produced.

In Canada, Algoma Steel in Sault Ste. Marie has announced its conversion from its existing primary steelmaking facility to an electric arc process that will utilize almost completely recycled steel. While all production routes in the industry use some recycled steel today in their feedstock, the electric arc project at Algoma will see another major shift toward scrap by this facility. Because they're very large, it will impact our 6 million tonnes by an additional significant amount. Overall, the electrification at Sault Ste. Marie is expected to result in approximately 3 million tonnes of CO2 reductions per year from those operations.

I'd like to spend just a few moments on the role we play in overall metals recycling and the circular economy.

● (1605)

When you visit a steel plant that utilizes a recycling stream—and I hope you all have—it's like witnessing very impressive recycling in action. In the recycled steel we purchase, there are many other metals and materials of value, and because of our scale and our consumption of the scrap steel portion, every effort is made to extract those additional valuable materials for other applications. This really contributes to the preservation of raw materials and this concept of a circular economy.

We also have a lot of innovation and development going on for high-strength steels and other applications that reduce the weight of steel for the same functionality. Again, that's another important contribution to the circular economy.

In closing, steel is essential to our world today and into the future. I've already spoken about our current markets of automobiles, construction, the energy sector and general manufacturing but, indeed, as many economies decarbonize, we'll also see new markets and new solutions. There will be infrastructure that will require more steel, such as renewable energy installations, hydrogen distribution systems, electric vehicles and much more.

Canada's steel producers have the vision to be a green supplier in these important critical supply chains for both current and evolving markets.

Thank you for your attention. I'll be happy to answer any questions at the right time.

[*Translation*]

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

I am now giving the floor to Ms. Côté for five minutes.

Ms. Amélie Côté (Source Reduction Analyst, Équiterre): Good afternoon to the members of the committee.

My name is Amélie Côté, and I'm a source reduction analyst at Équiterre.

[*English*]

Équiterre is a well-known Quebec-based environmental organization with 126,000 supporters, over 22,000 members and a 30-year history.

Waste management is one of our key priorities in our 2021-25 strategic plan. We're working to reduce waste at the source from a circular economy perspective.

[*Translation*]

In 2022, the organization published the first Canada-wide study on access to repairs, which I had the pleasure of coordinating and jointly directing. The study was funded by Innovation, Science and Economic Development Canada's Office of Consumer Affairs.

I would like today to draw your attention to two key points.

Firstly, as shown by the name of this committee's study, when we talk about the circular economy, it's often a matter of recycling, and focusing on extending the life of existing products.

Given the shortage of critical and strategic minerals, the key strategies of a circular economy should be given priority. Extending the life of products and components makes for a better use of resources. This applies to metals and plastics that have already been extracted and processed, as well as to existing electronics and electric household appliances.

At the reuse symposium jointly organized by environment Canada in the fall of 2022, several attendees underscored the problems involved in applying government funding to reuse initiatives on broader scale. In fact, most efforts go to recycling.

I would like today to encourage the committee members to include the key circular economy strategies among its recommendations.

The second point I would like to draw to your attention is the importance of promoting access to repairs through public policies that would extend the life of electronics and electric home appliances.

In Équiterre's study on repairing, we learned that fewer than 20% of Canadians repaired their products over the past two years. Furthermore, 63% of those who responded to the Canada-wide survey reported having at least one item break down during that period, within an average of 2.6 years after acquiring it. The reduced service life and repairability of these devices has a significant environmental impact on Canada and an economic impact on Canadians. We can talk more about this if you wish.

Équiterre made recommendations during the consultation on the future of Canada's competition policy. We believe that stronger competition requires the democratization of access to parts, tools and information for independent repairers and for the owners of the products being repaired.

It's also important to have access to better information when making purchases, to assist in making well-informed decisions. Canada could draw inspiration from France's repairability index, which will be replacing its durability index, and provide information about the service life and repairability of products at the time of purchase. A durability index could be introduced across Canada. It would be an important step toward supporting the development of a circular economy in Canada.

Repair cost is the second impediment identified in our study. To address it, a variety of environmental tax measures could be introduced. These could be tax credits, a repair fund based on the French approach, or tax credits for repair work. It would be useful to analyze the potential impact of these measures on decisions about whether or not to repair an appliance, to ensure that they are achieving this objective.

A brief was sent to the committee to allow you to explore these issues in greater depth.

I'd be happy to answer any questions you may have about the issues dealt with in my address.

Thank you for your attention.

● (1610)

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

Mr. Mugerman, the floor is yours.

[*English*]

Mr. Kiril Mugerman (President and Chief Executive Officer, Geomega Resources Inc.): Hi, everyone. It's a pleasure to be here today to discuss this super important and critical aspect of the circular economy.

Geomega is a developer of innovative processing technologies. We are focused on extracting metals from existing and new sources of material.

The demand for traditional industrial metals, such as steel, copper and aluminum, is constantly increasing due to new manufacturing and technological developments and, of course, population growth. Traditional recycling of these metals or simple-stream recycling, such as consumer end-of-life products and manufacturing waste recycling, has been developed over the last 100 years and is well established in Canada and worldwide.

On the other hand, the demand for critical and strategic metals is only starting to grow and simple-stream recycling is not yet developed or only starting to be developed worldwide. This is one example where Canada has a significant opportunity to become a global leader in metals recycling using innovative, sustainable technologies. Canada has already started investing in this field and should continue doing so to help its industries develop and establish a significant global presence in the circular economy for critical and strategic metals.

The developments of Geomega are specifically focused in this field, where we are working on building the first rare earth magnet recycling facility outside of Asia right here in Quebec, Canada. The magnets to be recycled will be sourced from end-of-life wind turbines, electric vehicles, MRI machines, manufacturing waste and many more applications from all over the world. They'll be processed into rare earth oxides here in Canada.

Contrary to the recycling of simple streams, for both traditional metals and critical and strategic metals another major metal recycling opportunity for Canada is from complex streams such as industrial and mining waste. These complex streams include bauxite residues from alumina production, electric arc furnace dust from steel recycling, iron ore tailings, copper and nickel tailings, niobium tailings and many more.

Traditionally, many of these complex streams have been sent to long-term storage in waste and tailings facilities. Today, due to the increased demand for both traditional metals and critical and strategic metals and the push for more sustainable environmental practices, these complex streams have more value than ever.

Once processed with the right technology, new metal streams will be developed to increase revenues of companies, tailings facilities will be reduced while freeing up space for other developments and many new high-skilled jobs can be created. Canada has already started investing in this avenue and needs to continue doing so while this field is still in its infancy.

Geomega has an active program of R and D projects focusing on complex streams such as bauxite residues from alumina production and other waste types, where new streams of iron, alumina, rare earth, scandium and other metals can be produced.

I'm here to answer your questions if you would like to learn more about what other opportunities can be exploited or developed while this field is just being born.

● (1615)

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

Thanks to all of our witnesses.

We'll go to Mr. Williams to start the discussion for six minutes.

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

Thank you to our witnesses for joining today. It's a very important study. We're happy to have you here.

Ms. Côté, I'm going to start with you.

I wish we had you here about a month ago when we were studying the right to repair. I think it's really great to hear your comments on repairing existing electronics and how important that may be to the future of recycling in Canada.

I want to start with maybe some questions around what I think has to be stated as the belief that it's industry's role to produce a product that can be recycled.

Can you maybe give us a little bit of overview of what other countries or jurisdictions are doing to ensure that industry participates in recycling by producing products that can be recycled?

Ms. Amélie Côté: Thanks, Mr. Williams, for your question.

What we find to be most important is, first, that these objects be produced in order to last longer, before they are reused or recycled. We think there is a responsibility for the industry in that way.

[*Translation*]

I'll continue in French for the rest of my answer.

First of all, there are several initiatives aimed at ensuring that products marketed should last longer and be more repairable. These include environmental design initiatives and legislative initiatives. One measure that has attracted our attention is a right to repair law adopted in France.

The act includes the durability index introduced in France in 2021, which I alluded to earlier. This index assigns a score out of 10 that provides information about the extent to which a product can be repaired. It will be replaced by a repairability index that provides information about the service life of the product, and whether it can be repaired or upgraded.

For example, for electronics, people will be able to know whether certain components can be replaced to extend the life of the device. That's an important consideration, given the current context. We find that it's a very useful option to consider.

As for device recyclability, consideration should be given at the design stage to allow easy removal of small components so that products would require less frequent replacement. This would have a positive impact on the circular economy.

As I mentioned earlier in my presentation, people often think of recycling when the circular economy is mentioned. However, we believe that it's also important to emphasize reuse. Repair is therefore another option.

Mr. Ryan Williams: Thank you very much.

[*English*]

I think, something that we look at is really that we increase competition, so we have companies that can produce a product that is better for the consumer so that the consumer has a better choice, more choice, and can decide where they put their money. You used a word in your opening, which I think was *impôts.* Are other countries using taxes instead of allowing free market companies to produce a better product? Have you seen different ways that governments are involved with trying to get products out the door?

[*Translation*]

Ms. Amélie Côté: We do in fact believe that competition is an important aspect.

We found that the main barrier to repair is product design. Providing access to repair also means giving access to the parts, tools and other information needed to effect repairs to independent repairers, and the owners themselves, rather than just those associated with the manufacturers. This lack of access is an obstacle to product repairs.

With respect to environmental taxation measures, several European countries, including Sweden, have introduced tax credits and repair tax credits, along with other measures. These are very concrete and could be adopted here.

In France, the repair fund is a discount built into the expanded accountability system for manufacturers. It involves an environmental tax paid when products are purchased. The proceeds are used to build up a fund that reduces repair costs.

● (1620)

[*English*]

Mr. Ryan Williams: Thank you so much. I just want to get one more question in. You're talking about electronics, which is great.

I also wanted to talk about waste at source, so let's look at groceries. Right now, when you go to a grocery store, you get a paper bag a lot of the times, but in that paper bag goes your bread, wrapped in plastic, your jug of milk wrapped in plastic and your sandwich wrapped in plastic.

When we're looking at waste at source, how do we handle food waste? What are other countries doing that we can implement into the circular recycling economy? How do we ensure that, when it comes to food waste, we're also looking at recyclable materials?

Ms. Amélie Côté: That's really interesting question. We did another study on this specific topic.

To us, there is a big gain to make, if we talk about the whole supply chain.

[*Translation*]

When people talk about supply, they are thinking of primary packaging, which is directly on the food. There are also possible ways of reducing packaging throughout the production and distribution chain. We believe that's an aspect that could be optimized in the industry.

There could of course be legal requirements as well. In France, for example, stores and retailers with a floor area of more than 400 square metres are required to sell at least 20% of food products in bulk. We believe that a requirement of this kind would introduce real changes in how the industry operates, and reduce the amount of plastic packaging.

The Chair: Thank you very much, Mr. Williams and Ms. Côté.

Ms. Lapointe now has the floor for six minutes.

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

My question is for Mr. Mugerman.

The critical minerals strategy is important for electric vehicles, clean energy and information technology. It's clear that the critical minerals required for these products are not unlimited resources. So a circular economy will be important.

What initiatives has Canada introduced specifically for the reuse of critical minerals?

Mr. Kiril Mugerman: Some initiatives have already been set in motion. I'd say it's only getting under way now. We're seeing some initiatives and investments in companies like Geomega for recycling rare earths, such as those used in the permanent magnets in electric vehicles and wind turbines.

There's also been a lot of investment in lithium recycling companies. That's another very important area to look at. Lithium is essential for batteries, but there's also cobalt. There are numerous cobalt recycling initiatives, but there is more and more investment today in research, because it's considered so important. There are a lot of research and development programs for the recycling of critical and strategic metals. These programs are in universities, research centres and private companies like ours. Those are probably the major changes we've seen recently.

Five or 10 years ago, these initiatives were not happening here. Only in the United States was money on that scale available for research and development into critical and strategic metals. There were virtually no initiatives of that kind here.

You can see the difference today, and I think that over the next five years, these initiatives will have borne fruit.

[*English*]

Ms. Viviane Lapointe: My next question is for Ms. Cobden.

I know you're here in your role with the steel industry, but in the past you have certainly worked with forestry, mining and construction, so I want to ask you the same question as well.

What initiatives has Canada put in place specifically to reuse critical minerals in e-waste?

Ms. Catherine Cobden: I can't speak to e-waste, but certainly what I can say is that you've made a very good point about research and development. There's been a lot of that, both private sector based and co-funded to support development.

I'm going to keep my steel hat on, if you don't mind. I made a reference to the development of lightweight steel. This is extremely important, again, to preserve the raw materials, the minerals and the critical components in steelmaking. It's this idea of making sure that we find ways to create the same properties that are required in an automobile, for example. There are certain properties that are required for safety and strength, of course, but this is to find new ways to chart new ground to get those same properties but with less material. That's a very real example of R and D doing what it can to support the development of ensuring that we're using as little of this stuff as possible.

● (1625)

Ms. Viviane Lapointe: Can you tell us how important it is that we work with international partners on this? How are we doing in terms of working with our international partners?

Ms. Catherine Cobden: Do you want me to respond to that?

Ms. Viviane Lapointe: It's for both of you again.

Mr. Kiril Mugerman: I think it's important, and probably the most important partner would be the U.S. They are our southern border neighbour, and we see a lot of interest from the U.S. to develop together all of those circular economies for critical and strategic metals.

We saw that the Department of Defense in the U.S. opened the door to Canadian companies to apply for the same funding of R and D that is open to U.S. companies. We still have not seen that from the Department of Energy in the U.S., which makes the majority of investments into this type of R and D. Hopefully the Canadian government can find a way to get the Canadian companies in there, because those companies work on exactly the same sources of material. The material that gets collected there can be recycled there or here, and vice versa.

Companies that work together have more flexibility by putting more resources together. If we are able to work only within the Canadian community, we are limited. But if we are able to work with Canadian research centres and American companies, which often have much more cash to invest in those new processes, that opens the door significantly. I think we are seeing that, but we should make more effort on this.

Ms. Viviane Lapointe: Okay.

Go ahead, Ms. Cobden.

Ms. Catherine Cobden: I would only add that, in steel, we need to choose our collaboration partners carefully, given the broader context that we have in steel around unfair trade and practices, which can apply to the supply of recycled input materials into our processes.

As long as we're mindful of the broader perspective in choosing those collaborations—and I think the U.S. is a very good example of working with a key ally and integrated economy player in the North American context—this is a great suggestion. However, for us, we would have flags for with whom, how far and how wide we may take collaboration.

[*Translation*]

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

Mr. Lemire, you now have the floor.

Mr. Sébastien Lemire (Abitibi—Témiscamingue, BQ): Thank you, Mr. Chair.

Mr. Mugerman, Geomega built a demonstration plant in Saint-Bruno-de-Montarville to recycle rare earth magnets. You also have a partnership with Rio Tinto to recover bauxite residues, in Boucherville.

Why is it so important for Quebec and Canada to succeed in recycling these metals, in a market that's largely dominated by China?

Mr. Kiril Mugerman: Mr. Lemire, just to clarify, we haven't yet built the permanent rare-earth magnet recycling plant yet. We are building it now. That's an important distinction to make.

Rare earth recycling only began about 10 years ago. In 2012, China wasn't even recycling rare earths. In 2018, about 30% of rare earth production was from recycling. That shows that if you take concrete action, you can create a rare earth production industry just from recycling. It's very significant.

We are now making an effort to bring the electric vehicle industry to Canada. However, it's not just a matter of bringing electric motors built in China to Canada; everything should be made here. To make all the components, rare earths are essential; for rare earths, you need oxides. Right now in Canada there are no rare earth mines that produce final oxides. Without enough mines, that option isn't available. So the best and fastest approach is recycling.

Not only that, but in China today, recycling is not done properly. That's not what we want to do here. We therefore need to develop better methods that will not create toxic or noxious residues. As you mentioned, we have a plant on Montreal's South Shore. We would never consider installing a rare earth recycling plant that pollutes the surroundings. Our plants do not create residues. Our environmental requirements are so strict that if we can develop reasonably-priced processing plants, we would be able to convince the rest of the world to use the same methods as us.

Bauxite residue is an interesting case in point. In Quebec, we have been extracting alumina, from which we produce bauxite residue. Bauxite residue contains several metals, including alumina, iron, rare earths, scandium, titanium and several other metals that should be recovered.

If the residues just sit there for years and don't contribute any value, then we are losing out. We now have the opportunity to create a circular economy, which would give us a chance to create new sources of value.

I think that Canada can become a world leader in mining residue recovery.

● (1630)

Mr. Sébastien Lemire: Definitely.

Thank you for your answer.

How important are scientific research and grants for your research?

One example is the Horne Smelter, here in Quebec, which could develop links with institutions like the Centre technologique des résidus industriels, the CTRI, or the Université du Québec in Abitibi-Témiscamingue.

Decentralization, through matching with a potential mining innovation zone, or even a Canadian government of centre of excellence for critical mineral batteries, could further integrate our industry.

Do you also think that you would need support from leading scientific centres?

Mr. Kiril Mugerman: I think that what's required is a collaboration between industries, research centres and universities.

Industries have very different goals from research centres. Research centres offer their assistance, whereas industries contribute their problems. When industries have a problem, it's more likely that research will more quickly and more directly get to work on developing the final product, process or procedure.

Universities play a different role. They contribute a lot of knowledge and train new students and new researchers who will eventually work in the research centres and in industry to move things to the next phase.

In short, investment is very important, because traditional industry doesn't invest in new and completely different methods. They invest in improving existing methods by 5 to 10%, whereas research and development centres like ours try to completely change things. That's the advantage.

What we are trying to do is completely change the way residues are processed and perceived, how metals and recycling residues are processed, and how the reagents and acids needed to produce metals are used without generating the problems of the past 50 years. There was processing, but the residues still contained acids. That's something we no longer want.

It's 2023 now. The approach to metals extraction is different.

Mr. Sébastien Lemire: It certainly is.

I've run out of time. Thank you for these very constructive answers.

[*English*]

The Chair: Thank you, Mr. Lemire.

Before I turn to Mr. Masse, I just want to point out that I've heard a lot of noise around this table and in the room. Please, colleagues, and everyone present, be mindful of the noise when we have witnesses testifying.

Mr. Masse.

Mr. Brian Masse (Windsor West, NDP): Thank you, Mr. Chair.

Thank you, Mr. Mugerman, for your intervention. I'm sorry I missed it. I had to take an important call, so I apologize.

I do want to follow up on one topic you mentioned—wind turbines and recycling. In my area, Windsor-Essex County, there have been a significant number of wind turbines added over the years. I don't think there's really been much of a plan.

Ms. Cobden, you might have some comment on this too. Logistically we've had to bring them in. They're huge. I'm just wondering how far in advance we need to plan for recycling. The way we brought them in was via ship, rail and trucks. I'm wondering whether or not we should be looking at a process of recycling them onsite versus shipping them out somewhere else.

Maybe I can get both of your opinions on that. I never even thought of that. I think they have a 30-year or 40-year life cycle, or something like that.

● (1635)

Mr. Kiril Mugerman: The wind industry is a very interesting sector. You are absolutely right that it's appearing everywhere. We need to understand that for wind turbines, the life cycle is anywhere from 15 to 40 years. It depends on the type of wind turbine, whether it's offshore or onshore. From our discussions and working with the wind industry, we see that they have plans and they do have companies internally that are already developing the process for recycling.

The recycling is fairly straightforward. They dismantle it. They want to recycle the blades. They have their own R and D groups that are working on how to recycle those blades and what to do with them. Of course, then it's a question of who pays for all of this. We find that if you look within the structure of the entire wind turbine, you see that one of the components that has the most value is the magnet, where the rare earths are. Of course, they do want to capture that magnet and to use companies like us to go to recycle that magnet and get paid for it, which covers the cost of dismantling.

Of course, for them it's very important as well to reuse the base, because that base gives the roots for the next one they will put in 20 years later. They have an integrated circular economy, but they are missing that key piece of where the magnets will go. If the magnets go into steel recycling, just for the steel value they don't get paid as much. What we are trying to offer goes hand in hand with the steel recycling industry, because for them it's very important to capture the steel, but the steel industry cannot pay what a magnet recycler will pay for that.

Mr. Brian Masse: Okay, that's a great start. Thank you.

Madam Cobden, please.

Ms. Catherine Cobden: I would add to that if we really want to ensure that we capture value when we're recycling the materials at end of life, we should ensure that we're using the highest quality materials within it. We were talking about this in the prelude to our appearing here today, just on the margins of the meeting.

For example, Canadian steel—all of the benefits of Canadian steel, not just its jobs but also its strength, its inherent content—would help support the recycling of those turbines, etc. As we are decarbonizing, we'll have more and more need for that material that's being returned into the recycling loop.

At the end of the day, if there are additional minerals in there, we have to make sure that we have enough value overall to be extracted in order to go at those additional minerals.

I would like to put in a plug that we are mindful about where our raw material is sourced from as we're building those turbines. It's not just for turbines, but solar panels and what have you, that we need to ensure that we are thinking comprehensively about the circular economy and, frankly, rewarding those who are participating in that and giving those higher value streams an opportunity to develop.

Mr. Brian Masse: With that, does anybody know if they can do on-site recycling there of the wind turbines or do they collect them and then...? I'm just wondering because we have hundreds of them. They're all going to sunset around the same time.

Are they melted down? Are they broken down? Are they chipped?

I'm just curious about the logistics of this in terms of the....

Ms. Catherine Cobden: I'm not sure what they would be doing on-site. That is maybe a really good question for the Canadian Association of Recycling Industries.

From our vantage point, we would use that steel because you can melt down steel from anywhere and basically, through metallurgy, repurpose it with additional properties for use in other products. That goes on in an infinite loop. Every time we melt steel, we improve the recipe or make the recipe according to the next product, and we just keep going like that.

● (1640)

Mr. Brian Masse: Okay.

Please go ahead.

Mr. Kiril Mugerman: Turbines are usually dismantled on the spot. There are companies who specialize in doing that. Again, we are only entering the end of life for some turbines, considering that a large volume of turbines really started appearing around the early 2000s. By the way, those originally did not have magnets; they were done with a different technology, because did not have rare earths.

Once they are dismantled, the blades, for example, will go through a specialized process where they are shredded or used for some sort of composite material or additive materials. The steel will get processed and get shipped towards the nearest recycling centres. There are steel scrap centres everywhere. Then, what's happening now more and more whenever there are magnets is that the magnets are usually collected separately into containers and get shipped to a company that can recycle the rare earths.

Mr. Brian Masse: This is really interesting. I know I'm running out time, but when the Gordie Howe Bridge was being built.... In fact, my first public meeting was in 1998 about building the new bridge. They are finally it. Also, we did a whole new route to the new bridge. What we didn't do was plan properly. We actually shipped dirt hundreds of kilometres away when we could have actually had a proposal to save.... I was working with the contractor and the government just wasn't interested at the time. It was too new. We could have used it for trails and other earth works and stuff and not put it into a landfill, and also not have the trucks with all of their carbon emissions. So we're importing dirt from somewhere else and shipping it out another way.

I know I'm out of time, Mr. Chair, but I'm looking for a lesson to be learned from that, because I don't think anybody has really thought it through, other than for what was just said.

Thank you.

The Chair: Thank you, Mr. Masse.

That concludes our first round. We're moving into our second round. I recognize Mr. Perkins.

Mr. Rick Perkins (South Shore—St. Margarets, CPC): Thank you, Mr. Chair.

My first question is for Ms. Cobden.

Your members are obviously competing on pricing here in Canada with a lot of imported Chinese steel. The recycling process that you outlined a moment ago to Mr. Masse, I presume adds some cost to the process. It's a cost that, I'm assuming the Chinese steel isn't incurred in the home country, China.

Ms. Catherine Cobden: I would add that the Chinese steel isn't as reliant on the recycling process as we are in Canada. We have really embraced it. What that basically means is that our production is about five times less, I think, greenhouse gas intensive overall than Chinese steel.

Again, another import point I was trying to make to Mr. Masse is that's why we need to be mindful about what types of steel we're putting in at the beginning at the front end, and at the back end when that we're recycling close to home where we're geared up to take that steel.

Mr. Rick Perkins: Is that also because of the metallurgical coal we use? Is that of a higher grade than what they're probably using in China to produce...?

Ms. Catherine Cobden: This is a different part of the production processes. We use met coal and iron ore in a different type of facility from the electric arc furnace, but of course that's another factor in why we are so much better from a greenhouse gas perspective.

Mr. Rick Perkins: Thank you.

My next question is for Mr. Mugerman.

Regarding rare earths, it sounded like you were describing a process that is in development, or that you have created for extracting rare earths right now from our electronics and that kind of thing. Right now we're very dependent on China for rare earths in all electronic manufacturing.

Have you developed a process where we can mine recycled materials and reduce our dependence?

Mr. Kiril Mugerman: Correct. We started developing a process around 2017 for extracting the rare earths from the magnets that go pretty much into all of the speakers you see in this room and into wind turbines. Those magnets are used more and more in everything. Getting the rare earths out of the magnet and back into a new magnet is the loop they are trying to close.

We are not going to be producers of magnets; we are just going to be getting the waste streams from where those magnets are, so that we can get the rare earths out and not have to depend on bringing those rare earths from China.

● (1645)

Mr. Rick Perkins: Are you doing this already in a production facility?

Mr. Kiril Mugerman: We are building right now the demonstration plant that will be able to process 1.5 tonnes a day of this material.

Mr. Rick Perkins: Fantastic. Thank you. That's great news.

I do have a question for Ms. Côté, but I think I'm going to run out of time.

The Chair: You have a minute.

Mr. Rick Perkins: Okay. I have a motion to introduce, but first, Ms. Côté, answer quickly, in about a minute if you could, this question.

Across the country, which province is doing the plastic recycling process really well and that we should be emulating?

[*Translation*]

Ms. Amélie Côté: The main problem with plastics is that they have become more diverse and complex over the years. That makes recycling them a very complicated task.

An expanded accountability system for producers makes companies accountable for managing the packaging and containers they market. This makes the standardization of packaging more likely.

The main problem is that 57% of plastic packaging marketed in Canada is not recyclable at the moment. We're nowhere near being able to recycle it.

[*English*]

Mr. Rick Perkins: Thank you.

I understand too from the Nova Scotia folks that a huge number of those clamshells and things you buy your cookies in aren't recyclable.

If I could move a motion right now that we gave notice of, I want to apologize first to the committee members that the copy that was circulated had a couple of typos. I'll try to correct those typos in my presentation. We gave notice last week.

The motion reads as follows:

That, pursuant to standing order 108(2), the committee undertake a one meeting study on the federal government's massive 14-billion-dollar investment in Volkswagen to build an EV battery plant in St. Thomas, Ontario:

1. That the committee order the department of Innovation, Science and Economic Development Canada to provide the committee with an unredacted copy of the contract(s) with Volkswagen

2. That the committee invite the Minister to appear for two hours to discuss the contract(s) in-camera

3. That this meeting occur no later than Monday May 8th, 2023, and

4. That the committee receive the unredacted documents a minimum of 48 hours before the meeting.

Thank you.

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

For the benefit of our witnesses, we now have to discuss and debate the motion that's been put on the floor by Mr. Perkins, and we have a hard stop at five to go in camera.

I appreciate your testimony.

I'll recognize Mr. Fillmore.

Mr. Andy Fillmore (Halifax, Lib.): Thanks, Mr. Chair.

I wonder if you would entertain a brief suspension, just so that we can understand the implications. I think there's nothing too out of line here at all, but we want to make sure that we understand it before you proceed.

The Chair: I'll get back to this.

[*Translation*]

Go ahead, Mr. Lemire.

Mr. Sébastien Lemire: I, for one, am ready to vote on that.

I will of course support the motion. I would simply like things to be consistent from the language standpoint and for the term “caviardé” to be included in the French version.

[*English*]

The Chair: I will grant a very brief suspension, because we do have a hard stop at five. You have about three minutes, plus or minus.

Thank you.

● (1645)

_____(Pause)_____

● (1700)

The Chair: Colleagues, I call the meeting back to order.

We still have this motion from Mr. Perkins on the floor.

As you can tell, it's been a very generous three minutes. I hope that we've come to a conclusion on this motion.

The floor is open for debate and discussion. Is there anyone who wishes to intervene?

I recognize Mr. Fillmore.

Mr. Andy Fillmore: Thanks very much, Chair.

I don't think we find anything overly offensive in the motion, but we see some room for improvement.

We have good material to work with already, Mr. Perkins, but I think, for one thing.... I'll tell you what the ideas are, and then I'm happy to provide actual language and propose an amendment, if we're able to get that far.

The first thought is that we would find value in also seeing the provincial documents, so the provincial contract—

Mr. Rick Perkins: Do we have access to those?

Mr. Andy Fillmore: We can ask. I think it would be great if the motion asked for that.

The other thing is the precedent that was set for this kind of document production, in a case like this, at the public accounts committee regarding vaccine contracts. The way that worked was there were strict controls, with no electronic devices. For example, you couldn't be emailed the documents 48 hours ahead, but you could go to the clerk's office and review them in a safe and secure environment, again, with no phone. It's about protecting the integrity of the contracts and, therefore, the impact on consumer price.

That's the gist of the amendments.

I have language that backs this up, and I'm happy to read it into the record. I can also bounce it to the clerk, so that you get it in a more formal way.

Mr. Rick Perkins: Pending seeing the wording—I'm sure it's fine—that's okay with me.

Those are friendly amendments.

Mr. Andy Fillmore: Can you remind me quickly, if you would, what the email address is? Is it INDU@parl.gc.ca? Okay. That's been sent.

We would start with Mr. Perkins' motion and then we would replace number three with the following number three:

3. That the Minister of Innovation, Science and Industry and department officials be invited to appear for a two hour in-camera meeting and that during the meeting, only committee members and support staff required for the meeting be permitted to attend and that no personal mobile, electronic or recording devices of any kind be permitted in the room during the meeting; that, during the meeting, numbered paper copies of the documents be given to committee members who are present in person by the clerk at the beginning of the said meeting and that these copies be returned to the clerk at the end of the meeting and that the clerk be instructed to destroy the said copies; and that no notes be taken out of the room.

Number four was good as it was.

On number five, we would modify it such that it would read that the committee would receive the unredacted documents from both levels of government—

The Chair: Colleagues, before we continue, I need to get unanimous consent so that we can continue for, I'd say, 15 more minutes.

Do I have unanimous consent?

Some hon. members: Agreed.

The Chair: Perfect.

Mr. Fillmore, you may resume.

Mr. Andy Fillmore: Picking up where I left off, we're replacing number five as follows. The new number five would be:

> 5. That, when these documents are received by the clerk:
>
> a. They be available at the clerk's office for viewing by committee members, for a minimum of 48 hours before the meeting under the supervision of the clerk and that no personal mobile, electronic or recording devices of any kind be permitted in the room that week; and that no notes be taken out of the room.

I've sent that to the clerk.

● (1705)

The Chair: I would just highlight a point that if the meeting is on a Monday and you say “a minimum of 48 hours,” is that on the weekend? It would be nice if members were around in Ottawa to go to review those documents.

Mr. Andy Fillmore: This is a fair point.

Would you be willing, Mr. Perkins, to change it to the 10th?

Mr. Rick Perkins: Sure. We'll change it to the 10th.

Mr. Andy Fillmore: There we have it.

Number six will be snacks and beer.

Some hon. members: Oh, oh!

The Chair: Everyone's heard the terms of the amendments proposed by Mr. Fillmore.

I see, looking around the room, that there is consensus to adopt the amendments.

(Amendment agreed to [*See Minutes of Proceedings*])

The Chair: Now, on the motion as amended by Mr. Fillmore, I see consensus around the room as well.

(Motion as amended agreed to [*See Minutes of Proceedings*])

The Chair: This is great. Thank you very much.

Go ahead, Mr. Masse.

Mr. Brian Masse: On a separate scheduling note, has there been any thought about what we're doing with Bill C-34 and Bill C-27? How much time do we have left to schedule those? I haven't checked my email, so it could be in my box right now for all I know, but I'm just curious.

The Chair: Mr. Masse, given that this would be committee business and we're still in a meeting and not in camera, I would suggest we take this off-line, where we can have a chat on these issues. We do have these two important bills coming our way, and we need to prioritize.

I want to thank you all.

The meeting is adjourned.