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Chair: Terry Duguid



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• (1610)

[*English*]

The Chair (Hon. Terry Duguid (Winnipeg South, Lib.)): We are back in session.

Pursuant to Standing Order 108(2) and the motion adopted Thursday, September 18, the committee resumes its study of the development of critical minerals in Canada.

I would like to welcome our witnesses and thank them for their patience while we did committee business.

I'd like to make a few comments for the benefit of our witnesses. Please wait until I recognize you by name before speaking. For those participating by video conference, click on the microphone icon to activate your mic, and please mute yourself when you are not speaking. For those on Zoom, at the bottom of your screen you can select the appropriate channel for interpretation: floor, English or French. For those in the room, you can use the earpiece and select the desired channel. All comments should be addressed through the chair.

Again, I'd like to welcome our witnesses.

We have Eric Desaulniers, founder, president and chief executive officer of Nouveau Monde Graphite. We have Professor A.E. Williams-Jones from the department of earth and planetary sciences, McGill University. We have Olga Vasyukova, research associate, also from the department of earth and planetary sciences, McGill University. We have Carl Laberge, president and chief executive officer, Saguenay Port Authority. On Zoom, we have Louis Ouellet, president, Union des Préfets-Saguenay-Lac-Saint-Jean.

You will each have five minutes for your opening remarks.

Monsieur Desaulniers, you have the floor.

Eric Desaulniers (Founder, President and Chief Executive Officer, Nouveau Monde Graphite): Thank you very much, everyone, for hosting me today and allowing me to discuss this very important topic.

I am Eric Desaulniers, president and founder of Nouveau Monde Graphite. Nouveau Monde is a company that started 14 years ago right across the river in Gatineau. The goal was to discover the next big graphite deposit, and we did that in 2015. We now have maybe about 110 employees, about 30 engineers, many Ph.D.s and a lot of well-paid jobs. We're planning, once the project financing has been completed and we have the final investment decision on both our projects, to have over 500 direct employees in the company.

We have as shareholders six important insiders. Investissement Québec has 17%. Canada Growth Fund has 13%, their first investment in a mining project. We have also The Pallinghurst Group. We have Mitsui from Japan, and we also have Panasonic and General Motors as important shareholders in the company.

For a president of a new company, it was quite an accomplishment to have assembled such strategic shareholders.

[*Translation*]

Currently, we are working on three major projects. The first is the Matawinie mine, which is two hours north of Montreal, in the village of Saint-Michel-des-Saints. We have all the project permits, and we've signed agreements with the community and the first nations.

In the coming months, once the project financing is in place, we will be able to complete construction of the Matawinie mine, which will be able to produce 106,000 tonnes of highly pure graphite concentrate. The bulk of the concentrate will be taken to the site of our second major project, located in Bécancour. There, it will be used to produce anode material, mainly for our clients Panasonic Energy and General Motors.

Our third major project involves the acquisition of a graphite deposit on the North Shore, near the Manicouagan reservoir. The acquisition is part of an expansion plan for the future, and the project is known as the Uatnan project. We will be able to build something five times larger than the Matawinie mine. It is currently the largest graphite project in development in the world.

[*English*]

Quickly, here is a bit of history on NMG.

For 14 years, NMG has been taking all the different steps, so if you have questions about any of the steps from early exploration to a discovery in 2015 or about how to help relationships with communities and first nations and how to help with permitting, we've been through all of this. If you want to know how to deliver a viable feasibility study on critical mineral projects, we did that in 2018 for the first time.

Also, on building the full process, it's one that is 100% currently done in China. If you want to know how to develop this process locally, we've done that over four years qualifying with Panasonic Energy to get the product on specs. Now we are in the project financing mode. The next step could be very helpful for the government, as well as this step of helping the top line and securing the supply chain.

This is really where we are at: being relevant in the value-added products we do for the EV transition but also now for other markets, because graphite is also useful in defence applications and other strategic applications for our economy.

We're quite happy to answer questions from the committee.

The Chair: Thank you, Mr. Desaulniers.

Your cellphone has been buzzing while you've been speaking. If you don't mind, put it away from the microphone. It is hard on the interpreters' ears and sometimes our ears.

Thank you for that.

Now we will go on to Professor Williams-Jones.

You have five minutes.

A.E. Williams-Jones (Logan Professor of Geology and Geochemistry, Department of Earth and Planetary Sciences, McGill University): Thank you.

I'm actually here to represent IEP, which is a small company operating out of Timmins, Ontario. They have an interesting prospect called Lackner Lake. It was explored back in the 1950s. A resource of something like 150 million tonnes of niobium, Nb₂O₅, at a grade of about 0.2 weight per cent, was identified, and then basically abandoned. The prospect also has tremendous potential for the rare earth elements.

When I say I'm representing them...I'm obviously a professor at McGill University. I don't have a consulting relationship with the company. In fact, our relationship is entirely a research relationship funded by NSERC—in other words, funded by the federal government—in a company-industry partnership. They wanted me to represent them here to basically answer questions about the geology of the deposit.

I focus on the processes that concentrate metals, and particularly critical metals, to economically extractable levels. That's where we're coming from.

Our research group pioneered the field of rare earth element ore deposit or ore genesis. For example, our work led to the discovery of Strange Lake, which I'm sure you're all aware of because of Torngat Metals. We were also involved in the discovery of Nechalacho, another rare earth element deposit in the Northwest Territories, and most recently the scandium deposit at Crater Lake. We have also worked on Ashram. We've worked on some of the major deposits.

That's the background. Why are we interested in Lackner Lake? The reason is quite simple. The deposits I've been talking about have a huge infrastructure problem: They're all in the Far North. Your challenge, really, is to basically provide the infrastructure you

need to extract the metals. I think this is a huge challenge. What I notice is there has been comparatively little exploration of systems that could be really exciting close to major centres. In the case of Lackner Lake, the deposit we're interested in is something like 100 kilometres from Timmins, so it's sitting in a major mining district. There are no infrastructure issues there at all.

I'll just close with the observation that if we're looking for rare elements or if we're looking for niobium, what we want to look for is carbonatite complexes, and what you have there is a carbonatite complex. If you looked at the whole story globally, what you would actually find is that carbonatite complexes are responsible for over 90% of the world's niobium and over 60% of the world's rare earth elements. If you want to find a deposit, go and look at carbonatites, but they're under-explored, particularly in the south of the country. For some damn reason, we geologists love to go north. It's fun.

● (1615)

The Chair: Thank you, Professor.

Now we'll go on to Monsieur Laberge.

You have the floor for five minutes.

[*Translation*]

Carl Laberge (President and Chief Executive Officer, Saguenay Port Authority): Good afternoon.

Thank you for inviting me to appear before the committee today.

My name is Carl Laberge, and I am the president and chief executive officer of the Port of Saguenay, a port authority established by the Government of Canada. Like the country's other major public ports, we independently manage Government of Canada-owned assets.

An interesting fact about the Port of Saguenay is that it was originally located in downtown Chicoutimi. In the mid-1980s, it was relocated to a greenfield. The port is surrounded by a lot of land, so we will be able to develop it for industrial operations in the future.

Another of the port's interesting features is that it's located in the Saguenay fjord, which is very deep—so deep, in fact, that its port capacity is among the largest in the country. That means the Port of Saguenay can accommodate very large ships.

A third feature that sets the Port of Saguenay apart is its location on the Saguenay River, a gateway to northern Quebec that is connected to the St. Lawrence River. We are well situated geographically to support mining development sectors. We are currently working with a number of companies involved in mining projects.

Over the past few years, we've built a significant amount of infrastructure. A rail connection to the port was completed fairly recently, in 2015. We are in the midst of building a conveyor system for dry bulk cargo, mainly for large quantities of mining and metallurgical products.

In addition, we are working very actively with the Government of Quebec towards developing the industrial land around the port. We currently have 1,200 hectares of industrial land. We are working on building one of the largest port industrial complexes in Canada, in co-operation with our investors and partners: the Government of Quebec and the City of Saguenay.

Currently, the port is connected to a rail network that runs to the northern part of the Saguenay—Lac-Saint-Jean region. The network connects the Chibougamau-Chapais region and others. The region is home to a number of mining projects in development—especially in the critical and strategic minerals sector—and could also be connected by rail to Abitibi. There used to be such a rail line between Grevet and Chapais.

Restoring the rail line would make connecting Abitibi, the Chibougamau area and the Port of Saguenay a real possibility in the future. The port has the capacity to accommodate critical minerals processing thanks to the availability of industrial land. Logistically speaking, the port is very well equipped, rail-wise and marine-wise, for the transshipment of mining cargo.

These projects have been in development for a while now, and we are ready to begin work very soon, as early as next year, because there is an important opportunity here.

I would be pleased to answer members' questions.

Thank you.

• (1620)

[*English*]

The Chair: Thank you, Monsieur Laberge.

Colleagues, we have Mr. Louis Ouellet on the screen, but unfortunately he doesn't have the approved headset. We will invite him back.

Colleagues, because we now have one panel of four witnesses for an hour and a half, would the committee agree to have two rounds of six minutes for each party and then the subsequent rounds as usual?

I see agreement. We'll see how far we get.

Mrs. Stubbs, would you like to lead off?

Shannon Stubbs (Lakeland, CPC): Thank you, Chair.

Thank you to all the witnesses for being here, and thank you to our virtual witness for attempting to join us. I wish there weren't time limits so that we could ask questions of all of you and have very substantive conversations about all these important issues.

I'll start with some questions to Professor Williams-Jones. I know that colleagues will ask questions of other witnesses later on in the meeting. I look forward to all of your information that's so critical to natural resources development, which underpins the en-

tire Canadian economy, something that we on this side have consistently argued.

Professor, you talked a little about the geological challenges faced by Canada. I wonder if you want to expand on the geological challenges that Canada faces in terms of establishing secure supplies of critical minerals.

In doing that, do you have any added comment on what the federal government can do to advance that development and what barriers exist to exploration and development?

A.E. Williams-Jones: I'll start off with an example.

I made a point about carbonatites, which are basically complexes made up of calcium carbonate and magnesium carbonate. I won't go into the details of the geology, but it's a particular type of geological setting. We probably have about 90 of them in the country. Most of them are remote, while some of them are actually fairly close to infrastructure, and they're grossly under-explored.

If I think of the carbonatite complex that is best explored at the moment, it's probably the Ashram deposit in northern Quebec. Resources have been defined and the company has gotten in there, but the challenge now is to provide the infrastructure needed to get it out of there.

The next challenge is how to tell the difference between a good carbonatite and a bad carbonatite. We have 90 of them. It turns out that our research has shown that there are key signatures that will allow us to distinguish carbonatites that have the potential for a mineral resource.

I don't want to bore you with a lot of science, but let's take this idea very simply. If I take a carbonate liquid and I look at the concentration of niobium and rare earths in it, it turns out that this liquid dissolves huge concentrations of these elements, so our challenge is actually to get them out.

How do we get them out? The model that we've been developing shows that if these carbonatites interact with their host rocks, the carbonate part is consumed, and you end up with a residue that concentrates these rare metals, so we can actually go in now and start to see the signatures that will distinguish between fertile ones and barren ones.

The whole challenge for the exploration community is that we haven't been exploring for these elements for a long time. In the case of copper or nickel, we've been doing it for years, so we have good exploration models; we don't have them for rare earths and niobium.

I'm suggesting that our group is developing them. I'm excited about Lackner Lake simply because we see the right signatures there, and it is close to infrastructure.

• (1625)

Shannon Stubbs: Would you say it's fair to suggest that the government is speaking effectively a lot about the concept and the ambition of developing Canadian critical minerals and rare earth metals, but so far has not done enough to advance and facilitate that exploration and development?

A.E. Williams-Jones: I'm going to go out on a limb here.

I was quite surprised when I learned the federal government.... I woke up in bed one morning, and there was Mark Carney in Germany announcing that Torngat Metals was going to ship rare earth elements to Germany. I started my career on Strange Lake; I know where it is, and the logistics are huge, so I'm wondering where all the money is coming from to actually build this project, but that's me being surprised—

Shannon Stubbs: No, I think that's you being an expert and being very clear about the realities of competitiveness between Canada and the other major mining jurisdictions around the world that don't have the same kinds of challenges that Canada does in terms of distance, climate, lack of ability to develop 24-7 access, land access issues, the uncertainty of policy and red tape that blocks exploration and, in the long run, development.

A.E. Williams-Jones: That's it exactly, so what we need to do is consciously support companies that are exploring interesting properties in the southern part of the country. Let's really focus on deposits where we already have infrastructure. There will be good ones and bad ones, but at least put your focus there instead of putting your focus in the Far North. That's my simple-minded view.

Shannon Stubbs: It was this same government, of course, almost five years ago now, that launched their much-vaunted critical minerals strategy, and then announced it again a couple of years later, and missed some elements that clearly should be on the list. Would it be your view then that this strategy hasn't really done very much to expand the development, exploration or export of Canadian critical minerals and rare earth minerals?

A.E. Williams-Jones: I think that would be my view. I think that what the government could do now is really invest in exploration in the southern part of the country.

Shannon Stubbs: Are there any other regulatory or fiscal measures that you think would help attract and expand critical mineral development in Canada, especially compared to other competitive jurisdictions?

The Chair: Please give a quick response, Professor.

A.E. Williams-Jones: You're probably putting me out on a limb there. That's way outside my expertise. I know how these things concentrate. I think I know the sorts of systems that we should be looking at, but what other attraction...? Well, I'd like to see more money going into research on these things.

For example, as I said, our group has just recently developed this model for niobium, and prior to that, we developed models for the rare earth elements, but the number of research groups around the world doing cutting-edge research is extremely limited. I'm proba-

bly tooting my own horn here, but I would argue that our group is leading it in Canada and probably around the world.

• (1630)

Shannon Stubbs: Thank you.

I hope you'll also provide a written submission.

The Chair: We'll go on to Mr. Guay.

[*Translation*]

Claude Guay (LaSalle—Émard—Verdun, Lib.): Thank you, Mr. Chair.

Mr. Desaulniers, I'd like you to comment on two completely different topics.

First, you offered to share the lessons you learned in working with first nations. What could the government do to help businesses like yours work with first nations in the future? For example, would it be helpful to create model agreements? Do you have any feedback in relation to participation and royalties?

Second, could you talk about the logistics of shipping the product between your city and the site of your second project, which is where the processing will take place? How will the product be shipped?

Eric Desaulniers: Thank you for your questions, Mr. Guay.

First, relationships with first nations take decades to build, as everyone knows. For our part, it's been just over a decade since we began our discussions with the Manawan community, and in December 2024, we finally reached an agreement with the Atikamekw nation. We worked on building relationships. We have employees who are community members, and we sponsor most of the events there, but what really made the difference was when we were able to put two important measures in place. One was providing the community with significant economic benefits, which was very important, and two was finding ways for the community to participate, not just through employment, but also through contracts. That was really important to the Manawan community. It didn't want to just watch the project happen, without developing any expertise. We really put a lot of hours, years, into figuring out which contractors in the community could participate meaningfully in the project and creating connections with companies outside the community.

Second, any federal program supporting the equitable participation of first nations in projects is a good idea. I know that a program was just introduced. It's a great initiative to help first nations build real expertise so they have competitive advantages when bidding on major projects, since they may not have all that expertise to start. Those two measures really helped us take our relationship with the community to the next level.

Many other things helped us reach that level: being present, having conversations, being respectful of their culture in our work on the project. Fundamentally, though, it's important to have something you can offer the community so that it can enjoy tangible benefits from the project, not just watch from the sidelines. That's really what made the difference in December. We were able to seek out those incentives. We are going to carry on that work under the program that was just introduced, so that the other indigenous communities we work with can participate equitably, whether it's the Innu on the North Shore or the Abenakis of the Wôlinak community, just outside Bécancour. That kind of programming is very helpful to us.

To answer your second question, which was about logistics, I will say that we are lucky to have a project in Saint-Michel-des-Saints. We are a two-hour drive from the project site, so logistics-wise, we're spoiled. We are fortunate to have an incredible geological deposit very close to the major centres, which is in line with what Professor Williams-Jones recommended. Social licence within the community was central to the project's development, and we have the support of more than 80% of the local population. People can see the benefits of the project because it is so close. There will be a fully paved road between the two sites, with about a dozen trucks travelling between the sites. In comparison with the lumber industry, that isn't considered a major use of the road. Logistically speaking, moving between the two sites is fairly simple in our case, as compared with other mining projects, where it's basically take it or leave it. In our case, the infrastructure is already there.

• (1635)

Claude Guay: Where will that production go? Do you have agreements?

Eric Desaulniers: Originally, we projected that the majority of the approximately 100,000 tons of concentrate produced in Saint-Michel-des-Saints would go to the electric vehicle or the lithium-ion battery sectors. We have two contracts, one with Panasonic Energy and one for General Motors' supply chain. Historically, there has been an important market for graphite outside of the lithium-ion battery sector. Roughly 150 clients have been getting their supply from Canada for about 30 years. Canada has been the only producer in the G7 for more than a century. Our project is the only significant one in the G7.

It is important for us to diversify our supply agreements and to not only supply the lithium-ion battery market, regarding which we have a lot of competitive advantages thanks to our two pre-existing agreements, but to also supply every other strategic sector. We have been in talks for a long time with a company called Traxys to use our product as an input for the production of firebricks, which is still the number one market for natural graphite.

We are currently building direct relationships with several clients for strategic applications such as sheets for electronics, heat dispersion, lubricants or small carbon brushes used in electric engines. All of these applications are very important to our economy, but they do not represent huge volumes that can finance a mine's operations. We make sure to work with all of these clients.

[English]

The Chair: Thank you, Mr. Desaulniers. The time is up.

I'm sure we'll come back to you later, Mr. Guay.

Mr. Simard, you have the floor.

[Translation]

Mario Simard (Jonquière, BQ): Thank you very much, Mr. Chair.

Mr. Laberge, your speech on the Port of Saguenay's advantageous position was really nice.

Our committee is looking at ways to streamline the expansion of the critical minerals sector and at which types of infrastructure would be required to do so.

I appreciate the earlier criticism coming from Mr. Williams-Jones, but I am not as pessimistic as he is. I remain optimistic because I think that the Port of Saguenay could play an important role in getting certain minerals in northern Ontario and especially Quebec to market. These minerals are near a railway that would need to be rehabilitated.

Can you inform the committee on the Port of Saguenay's characteristics and the role it could play in the development of the critical minerals sector? That is what our committee is interested in at this time. I also invite you to submit to the committee maps showing nearby mining projects.

Carl Laberge: We can play a very important role. We talked earlier about the importance of logistics and infrastructure. Canada's goal is to diversify its economy and reach foreign markets other than the U.S. market. These other markets cannot be reached other than by transport vessels. Ports therefore play a critical role toward that objective. The geographic location of the Port of Saguenay is advantageous. In addition, as I said earlier, it is well positioned with respect to the industrial land surrounding it. Canada aims to process its raw materials in order to add as much value as possible. That is what the Port of Saguenay can offer, which is quite unique.

In terms of infrastructure, the Port of Saguenay also benefits from its connection to a northern rail network. This network could be improved and rehabilitated at low costs, compared to other options that have been proposed recently to reach mining sectors in the north. This vision is in line with what has already been implemented in Saguenay—Lac-Saint-Jean, where low-cost improvements to the rail network to improve its fluidity have already been proposed. The same goes for northern Quebec. In my opening remarks, I talked about a project to rehabilitate a section. This project was proposed by the Cree community a few years ago. A little further away, the rail network in Abitibi is well connected to northern Ontario. It would be possible to optimize the infrastructure in those areas as well.

Looking at the big picture, we see that a northern corridor already exists in some places and that it could be improved and optimized with a little investment and collaboration among the various stakeholders. That would make it possible to reach a very significant part of northern Quebec and northern Ontario in order to carry out more mining projects in those northern sectors and bring them closer to infrastructure. The Port of Saguenay is setting up a processing point and an exit point for these projects to integrate the infrastructure, the transportation logistics and the ability to process materials and ship them to foreign markets very quickly and at very competitive prices.

● (1640)

Mario Simard: I have taken part in other studies on critical minerals in the past. The key element is energy. Processing minerals, whether it is primary or secondary processing, requires energy, which in turn requires access to power lines and gas. Can you briefly describe the Port of Saguenay's situation in that regard?

Carl Laberge: Thank you for the question.

We have talked about the other benefits, such as the industrial site. This site is also located in Saguenay, a major city with a fairly abundant workforce. The site is a good distance from residential areas, but it is also relatively close to workers.

We also have access to the energy grid. As you said, mining processing industries must be able to access energy sources, whether electricity or natural gas.

In addition, in Saguenay, we are fortunate to have what I would call an exceptional connection to the network. Not only are we connected to the network, but we are ideally located in Hydro-Québec's network, between the major northern production hubs in the North Shore and James Bay regions and the major consumption centres along the St. Lawrence. Saguenay is geographically located in the middle of this network. The ability to build interties is considerable.

Having the electrical capacity is a big advantage of the Saguenay site, and we are obviously connected to the natural gas grid right now. We are therefore able to offer these processing capabilities.

[English]

The Chair: Thank you, Mr. Laberge.

It's on to Mr. Martel, for six minutes.

[Translation]

Richard Martel (Chicoutimi—Le Fjord, CPC): Thank you very much, Mr. Chair.

Mr. Laberge, can you tell us about development opportunities in the Port of Saguenay to support economic growth in Canada and Quebec?

Carl Laberge: As I said, there are huge opportunities for development.

In terms of economic benefits, we have 1,200 hectares of industrial land to be developed, which offers immense mining potential in the northern part of the region. We are already in talks with certain companies. That is no secret.

Among other possibilities, there is the phosphate industrial processing capacity. Companies want to build plants in our area regarding two phosphate projects. There are also projects in the lithium and copper sectors. Businesses also want to go make use of our facilities. Other processing sectors are located in the same area.

We are going to invest in infrastructure so that we are ready and in a better position than other countries to welcome these projects. However, we really want to encourage private sector investment by offering good infrastructure both in terms of transportation and in terms of industrial facilities.

Economic benefits will flow directly not only from future development at the Port of Saguenay, but also from impacts on the transportation chain. Our investments will be very significant and very strategic.

● (1645)

Richard Martel: Thank you, Mr. Laberge.

Mr. Desaulniers, you mentioned having obtained social licence, which is no small feat.

You said that you have been working on this project for 15 years.

Why is it taking so long?

Eric Desaulniers: I would not say that we have obtained social licence, because that is a goal you have to work towards year-round. It is a constant job, a bit like a marriage. We have to make sure that the community always accepts us.

We have been present in the community since 2013, which greatly facilitates social acceptability.

I still go back every Christmas with my family. There is no way my children would go anywhere else.

We are involved in organizations. We are now one of the largest employers in the region. That has been built up over time.

We conducted two surveys: one in 2018 and one in 2019. We have not done another one in a long time. At the time, we had 83% and 82% support, respectively, but there are still 9% of people who do not approve our project. So we have to respect them and make sure we do not create losers. We are working on this with all our hearts, bringing together the strengths of all our engineers to try to understand how to best develop the project for the community.

Our project includes a number of concrete environmental initiatives, such as the gradual rehabilitation of the site, the fully electric mine—which we are developing with the Caterpillar industrial group—and the filling in of the pit. We offered everyone a radius of one kilometre around any infrastructure as well as voluntary acquisition of their property if they were concerned about what we were doing.

A number of what I would call original initiatives have enabled us to ensure that our project does not create losers.

Richard Martel: Mr. Desaulniers, you know that getting unanimous support is not possible.

You talked about conducting surveys. When, for example, 90% of people support a project and 10% oppose it, it is impossible to reach unanimity.

What I also understand is that if five people disagree with a project and 800 support it, the project cannot move forward.

Is this correct?

Eric Desaulniers: Quebec has a great process in place. It took us 19 months from the time we submitted our feasibility study and impact study to get an approval by order in council, and that includes the consultation period of the Bureau d'audiences publiques sur l'environnement, or BAPE. Everything went well because we took it seriously. From the outset, we submitted a project that demonstrated to all Quebec government experts that we deserved to get an approval by order in council, which was issued in February 2021.

Since then, construction has started. However, what would take the project to the next level would be to complete the marketing strategy. Graphite is a critical mineral. It is not like gold, copper or a basic mineral. It is about de-risking the revenue side of our project so that we can attract the capital to make it happen and sell that product to buyers at a reasonable price.

Richard Martel: You know that output volumes are important. Will your output volume be sufficient? That is always the question.

At the same time, if foreign companies see that you have a lot of potential, they can drive prices down.

Do you expect the competition to be fierce?

Eric Desaulniers: Right now, 100% of the graphite used in lithium-ion batteries comes from China. I am not talking about graphite for traditional use. In that respect, there is already a market we can rely on, and prices are already higher than in the market for the graphite used to manufacture lithium-ion batteries. The latter is completely dominated by the Chinese. They clearly understood, over the past five years, that the demand was massive and they built an exceptional supply chain.

China is already engaging in somewhat unfair competition. Last year, the U.S. government announced that it would impose anti-dumping tariffs on graphite imports from China. This will be on top of the current 105% tariff, which will officially come into effect later this year.

Mechanisms have been put in place to allow us to offer a competitive price to our customers, mainly the Americans. We would very much like to see similar measures in Canada so that we could keep our product in the country, but there is indeed competition in this market. This market generates a large output volume, but profit margins are smaller. That is why we need more strategic markets where the output volume is smaller and the profit margins are larger.

• (1650)

[English]

The Chair: Thank you.

We will go to Mr. Hogan for six minutes.

[Translation]

Corey Hogan (Calgary Confederation, Lib.): Thank you, Mr. Chair.

I want to thank all the witnesses for being here today, including those who are appearing online.

Mr. Laberge, you mentioned private investments. One of the issues that was mentioned to us is that no proponent is coming forward for the northern corridor project.

Why is that?

[English]

The Chair: Can you repeat the question? The interpreter didn't hear it.

Corey Hogan: Why do you think there's not a clear proponent for the northern corridor?

[Translation]

Carl Laberge: This project is being compared to others that have already been announced and for which it is easy to find a proponent. I am thinking, for example, of mining projects or nuclear power plants that are located in very specific places. We cannot compare them to a project that spans several hundred kilometres and involves a number of different players. It is hard to find a single private investor who will take on a project of national scope.

What we see is that a lot of private investment comes from more than a single stakeholder. For example, at the port, we work with local private sector terminal operators as well as various other investors. When it comes to the railway, railway companies will obviously have a role to play. I spoke earlier about indigenous communities, which are currently the proponents of part of the project and will also be stakeholders. There are also the mining companies, which will be paying users of this site and will contribute to the project.

So there is not one single private investor, but several, and they will have to work together. Governments will also have to play a unifying role to ensure that a corridor as strategic as this one can be created, organized and funded. There is a certain level of risk associated with this project, and it will require a more complex financial structure than if there were only a single investor.

[English]

Corey Hogan: That leads into a question for Professor Williams-Jones.

I totally hear you on the north and perhaps—my words—your skepticism on the north in terms of development. I'm a little more enthusiastic about the long-term possibilities, and I want to make sure the government is keeping an eye on it.

I'm curious to know, from your view, if you think there are near-north opportunities or developments in the north that you would support if forced to do so. Which ones do you think are the good ones, and how would you pursue them?

A.E. Williams-Jones: Right now, if we talk about lithium, because of the James Bay hydro projects of the 1970s, we do have roads that get up there. We should really be promoting those projects strongly, because that would be an example of promoting deposits in the north. There is quite a lot of exploration going on at the present time. Yes, where we have at least partial infrastructure, we should really promote it, and that would be a good example.

Could I use this as an opportunity to talk about metallurgy?

Corey Hogan: Sure.

A.E. Williams-Jones: We're talking about these rare metals, these critical metals. What we haven't talked about is how easy or how difficult it is to extract them. Finding the deposits is one thing; exploiting them profitably is another.

I'll give you a really good example that's close to us in Quebec. It's Niobec, which produces niobium. Do you know that only 59% of that niobium is being recovered, while 40% is actually going into waste? This is a huge challenge.

If we talk about Strange Lake, again, yes, we talked about the infrastructure, but what we didn't talk about was how easy or how difficult it is to extract the metals from the minerals. The Chinese have developed technology for Bayan Obo, if we're talking about the rare earth elements, and they have just a couple of minerals that they're working with. If I go to some of these deposits in Canada, I see that the mineralogy—in other words, where the metals are—is quite complex, so the federal government, in my view, needs to be investing money into trying to improve the level of extraction.

I've given you the Niobec example. We're talking about all of these lithium projects, and my own research group is heavily involved in lithium. What we've seen is that there are serious metallurgical problems and that there could be real investment in the metallurgy. Let's not forget the metallurgy.

I'm sorry I got off track, but I think this is important for all of you.

• (1655)

The Chair: Okay.

You have just 30 seconds.

Corey Hogan: On access to capital, what can the government be doing in that space? That's been a common theme in the committee meetings so far.

That's to anyone who wants to take it.

A.E. Williams-Jones: You guys are much more qualified. I'm just a lonely scientist.

Eric Desautniers: Yes, it's my job on a daily basis to raise money.

The challenge, really, is geology. We always have somebody interested in geology if they are properly funded. The challenge is to make sure that the capital markets stay interested in critical miner-

als all of the time, not in a very cyclical way. I remember Quest Rare developing Strange Lake many years ago, and then rare earth wasn't interesting for capital markets for a long time.

With graphite, we had the chance to be part of a lithium ion battery. I would prefer them to be called “graphite batteries”. It would be clearer that graphite is the biggest component of the battery, but at least we had this push.

The Chair: Thank you. That's great.

We'll go to Monsieur Simard for six minutes.

[*Translation*]

Mario Simard: Thank you, Mr. Chair.

Mr. Williams-Jones, what you said about metallurgy is important. I would like the analysts to take into consideration, for the report, the fact that last week the committee heard from witnesses who talked about their proposed consortium on rare earth minerals. They try to mutualize risk and see how they can develop technologies together to benefit the entire industry. I am just saying that for information purposes.

Mr. Laberge, let me turn back to you. Mr. Hogan's comments earlier were very relevant. He talked about the challenge of finding a proponent for the corridor project. Geographically, you are at the end of this infrastructure, and you are a federal creature. You are a federal public enterprise and some of your land is owned by the federal government.

Could you tell the committee how the Port of Saguenay could be improved to become a hub for critical and strategic minerals?

What investments could be made in the port's existing infrastructure to make it a hub for exporting critical minerals to Europe?

Carl Laberge: Thank you very much for the question.

Here are the details of what needs to be done at the Port of Saguenay right now. We have been working for several years on two main elements.

First, we need to upgrade our infrastructure to increase our marine shipping capacity by adding berths. The project to add storage areas is valued at \$150 million. In that regard, we already have support from the Government of Quebec, which announced a \$20-million grant about two years ago.

We are also in talks regarding a loan with the Canada Infrastructure Bank. We also applied for a grant under the former Transport Canada government program called the national trade corridors fund. The goal was for that fund to contribute 50% of the project cost. That is the first part of our plan. We will be ready to start that work next year, in 2026. We have made a lot of progress, particularly in terms of environmental assessments and the engineering plan.

Second, the port's industrial lands must be developed. We need to give businesses access to the basic services they need: electricity, process water, drinking water, waste-water treatment and fire protection. Those are the basic services needed for us to be ready to build. As for investments, the Government of Quebec already agreed to support us about three years ago with a loan from Investissement Québec.

We are also in talks with the Canada Infrastructure Bank to see whether it can contribute to the project under the critical and strategic minerals infrastructure support initiative.

We would like the federal government to contribute to our project as well. In addition to funding for basic infrastructure, the project includes connections to high-voltage power lines, in partnership with Hydro-Québec, as well as a natural gas line that is to be extended directly to the project site, in collaboration with Énergir.

• (1700)

Mario Simard: Thank you very much, Mr. Laberge.

Mr. Desaulniers, I am going to ask you the same question I asked witnesses last week.

The government is a big fan of things that do not cost it a single penny. What regulatory measure could be reviewed to accelerate the development of the critical minerals sector?

I will not hide the fact that we cannot ignore environmental issues. I know there are sometimes regulatory measures that are questionable. I would like to hear your thoughts on that.

If you could table documents that could make the committee's life easier when drafting the report, we would appreciate it.

Eric Desaulniers: Thank you very much for the question.

In the critical minerals sector, funding for projects is crucial. There is a whole ecosystem in the gold, base metal or copper sectors, for example. Large companies acquire the most interesting projects, which makes start-ups attractive to investors. There is a whole ecosystem, because the products are easily traded.

The crux of the issue in the critical minerals sector is having an understanding—a precise understanding—of the selling price of these minerals and how they are procured. We are fortunate, thanks to Panasonic and General Motors, to have entered into long-term supply agreements that allow our investors to measure the company's profitability. It took many years to get those agreements in place. The market is quite opaque.

Investment tax credits in clean tech are really important for our cost structure because we are competing with the Chinese market.

In an ideal world, the way in which we could develop the critical minerals sector without spending a single penny, as you put it, would be to become the best at understanding what these minerals are used for. In practical terms, in the defence sector, we would need to know where graphite, niobium and lithium go outside of lithium-ion batteries. We need to make sure that we understand that market. It should also be transparent for investors.

How can we convince capital markets to invest in these projects rather than just in the gold sector, for example?

Measures can be put in place, including procurement agreements or contracts for difference. There would have to be a variety of mechanisms in place to make sure that companies with projects in the critical minerals sector can secure their supply in the long term. This would allow them to finance projects through the capital market and not rely solely on government subsidies.

[English]

The Chair: Thank you.

Colleagues, the third round, which will be approximately 23 minutes long, will take us to the bottom of the hour. We can have that as our final round of questions—everyone gets a chance—or we could add an additional three speakers at the end, one from each party.

What is your wish? Is it to finish at the bottom of the hour or to extend the time?

The witnesses have had a pretty good working over today, but it's up to you. We had a few stops and starts.

Shall we stop at 5:30 or continue?

[Translation]

Mario Simard: Mr. Chair, I suggest that we continue.

The Chair: We can continue.

[English]

Mr. Martel and Mr. Tochor are going to split their time in this round.

Corey Tochor: How long is this round?

The Chair: There are five speakers in this third round and three speakers in the last round.

It's five minutes for Mr. Tochor and Mr. Martel and five minutes for Mr. Danko. It's 2.5 minutes for Mr. Simard. Then it's Mr. Martel for five minutes and Mr. McKinnon for five minutes.

Then we have an additional round, if the committee so wishes. Is that all right? That's five minutes, five minutes and 2.5 minutes again.

Mr. Tochor, go ahead.

• (1705)

Corey Tochor: Thank you very much to our witnesses for being here today. It's a wonderful opportunity for Canadians to learn a little about our different facilities throughout Canada.

I was very interested in reading the Port of Saguenay's annual report of 2024.

I understand that there was a plan back in 2014 for an LNG plant at the port. Is that correct?

Carl Laberge: Yes, that is correct.

Corey Tochor: That was to move roughly 11 million tonnes of liquefied natural gas. It was being proposed a decade ago. The fear was that it was going to kneecap our economy if we didn't have the ability to export to places other than the United States.

If we fast-forward to today and to what's unfortunately going on in Ukraine, we see allies that can't wean themselves off dictator Putin's natural gas. That has not helped the conflict in Ukraine.

On this project, though—why was it killed?

Carl Laberge: What happened is that at the end of the environmental process, they didn't get the permits they needed, first from the provincial government and after that from the federal government.

Corey Tochor: So it was political intervention that hurt this. It was ideological reasons that ultimately killed this LNG plant that would have been very beneficial for the world and for western countries, which is a shame.

Also in the report, there's a line here that.... You guys are in the coal business as well. Am I correct?

Carl Laberge: Yes, we are, a little bit, for some customers.

Corey Tochor: There were 43,552 tonnes that went through. Is that import? I'm assuming it is.

Carl Laberge: It is import. It's metallurgical coal. It's for a customer for metallurgical use in the region.

Corey Tochor: Where is that coal coming from?

Carl Laberge: It's coming from Toledo, through the port of Toledo.

Corey Tochor: What country is that?

Carl Laberge: It's in the U.S.

Corey Tochor: It's the U.S. We're importing coal from the U.S.—a whole bunch of it, 43,000 tonnes—while this port, not through your fault but because of political reasons, couldn't export liquefied natural gas to our allies in Europe.

Those are all the questions I have. I'm going to pass my time over to Mr. Martel.

The Chair: Go ahead, Mr. Martel.

[*Translation*]

Richard Martel: Thank you, Mr. Chair.

Mr. Desaulniers, when will you be ready to start extracting?

Eric Desaulniers: We are currently in talks regarding the funding of the Matawinie mine project. We hope to secure funding for the project by the end of the year or early next year. Then the building phase will take 24 months, and the start-up will take 6 months. In a perfect world, large-scale production would start halfway through 2028.

Richard Martel: Is there anything that could stand in your way?

Eric Desaulniers: At this point, securing funding for the project is paramount. We need to have all the necessary supply agreements

in place this fall in order to convince our lenders and secure the funding.

Richard Martel: Can you tell us which permit has been the most difficult or has taken the longest to obtain?

Eric Desaulniers: I would say that the provincial order in council is the one that took the longest to get.

Obviously, before launching a major mining project that affects the environment, a lot of things have to be assessed. Each project is unique. We had to do an environmental impact assessment that required almost 10,000 pages of engineering information. After that study was published in 2019, we worked for about 19 months with the Quebec Department of the Environment to get our order in council in 2021, as I mentioned earlier.

For mining projects, the environmental process is long and very serious. That permit is usually the most complex one to obtain.

Richard Martel: Do you feel like there are sometimes overlaps between the provincial and the federal governments?

[*English*]

The Chair: Give a quick response, please.

[*Translation*]

Eric Desaulniers: If we had to take fish habitat into account, there could have been overlaps, as we see in many projects. In our case, it did not happen, thankfully.

Richard Martel: Thank you.

[*English*]

The Chair: We will go on to Mr. Danko.

Mr. Danko, you have five minutes.

● (1710)

[*Translation*]

John-Paul Danko (Hamilton West—Ancaster—Dundas, Lib.): Thank you, Mr. Chair.

[*English*]

I'm very much enjoying this afternoon's discussion.

I think my first question is primarily for Monsieur Desaulniers.

Going to the big picture, it seems that most of our discussion this afternoon has been on critical minerals. You mentioned EV transition in other markets, and there have also been discussions about the market for batteries in China, but it seems to me that the basic premise of the discussion—what is driving the need for Canada to leverage its critical minerals market—is the transition of the economy away from fossil fuels to an electric economy. That is happening globally.

This is not an ideological question or a political question. From your perspective, what is driving that market, which in turn drives the basic premise of developing Canada's critical minerals?

Eric Desaulniers: You're right. In our specific market, graphite, the growth in the EV sector and the growth in battery energy storage systems, or BESS, which are using the same lithium ion batteries, are the two main reasons that justify a large graphite mine like the one we are building.

If this market weren't growing at the pace it is, we would not need such a big mine. We would need probably 20,000 or 30,000 tonnes of graphite, which we have been producing in Canada for many decades already. Now we are building a 100,000-tonne mine. We have a mine that will be five times the size in the pipeline to really cope with this potential growth we have in the EV sector and battery energy storage. All the G7 countries need at least one alternative to the domination from China.

We don't want to change what China is supplying to our market. It would be unrealistic to do that in the time frame we have. However, we need to have this safe alternative in case those supply chains are disrupted.

John-Paul Danko: Thank you.

I have a quick follow-up. Is it your understanding that this transition away from fossil fuels is a global trend and that basically, around the world, the transition of major economies away from fossil fuel is driving this economic growth?

Eric Desaulniers: Yes. It used to be that North America was leading. Now that's not the case. The Asian markets have been leading this transition for over 12 months.

More than 50% of the passenger cars sold in China are EV, and now they are getting into trucks. In the shipping industry, 20% of the trucks sold are now EV. They're really going after the fossil fuel economy, because, obviously, they don't have any, so they want to decouple from that.

In Europe it's also over 20%. In the U.S., it has now slowed down, obviously, but this is seen as very temporary, because the rest of the world is going to EV and battery storage. That's for sure.

John-Paul Danko: Thank you.

I want to switch gears to talk about the port a little bit.

I'm from Hamilton. We have the Port of Hamilton in Oshawa, which is the largest port on the Great Lakes, on the St. Lawrence Seaway.

We've talked about what we're going to be shipping out, but we haven't talked about the other side of the equation—what we're bringing in.

For the port to operate efficiently, what are the opportunities for imports into Canada from the port?

Carl Laberge: You're right, it could work. We're talking a lot about exports because of the opportunities we have in the mining sector, but the port is importing quite a lot of material to feed industry.

In the aluminum sector or the forest industry, there's some inbound material that you need. We are developing that industrial zone that will support critical and strategic mineral development in the future. That could lead to other developments. As we've been

doing in the past in the regions with the aluminum industry, for example, we don't have the basic material that we are importing, so it could work effectively both ways. Having that good infrastructure could feed the region, but could also go west to help the rest of the country as part of the system.

You mention the Port of Hamilton. We like the Port of Hamilton; we're good friends with those guys. We like to work with the Great Lakes. We are able to take the very large ships from the Port of Saguenay. We are doing some transshipment operations with the Great Lakes where the smaller ships that can go into the locks are going to the Saguenay port, and then transferring to an ocean-going vessel, for example. We're working together.

● (1715)

The Chair: Thank you.

Mr. Simard, you have two and a half minutes.

[*Translation*]

Mario Simard: Thank you, Mr. Chair.

Thank you, Mr. Laberge, for your explanation of the strategic role played by the Port of Saguenay regarding inputs. I know it is essential to the aluminum industry back home. I also saw on your website the wind turbine blades that were in storage.

I would like to hear you talk about the strategic role that you could also play in the military sector, since the Port of Saguenay is close to the Bagotville military base. Can you give us some details or explanations?

Carl Laberge: Indeed, the defence sector is one of the industrial sectors that the Port of Saguenay has been targeting for some time, even before it was economically trendy. The reason is quite simply that we are developing a world-class industrial site with a major logistics hub. However, it is also because the project site, being located away from residential areas, is more suitable than others for this type of production.

In addition, we are close to one of the largest military bases in the country, Bagotville, where significant investments are currently being made in the air force and rapid deployment forces. The proximity to the base, which is literally our neighbour across the road, means that we can serve as support. Let us not forget, when we talk about industrial development, that there is skilled labour available: The area is home to a lot of retired Canadian Armed Forces members, for example, who have significant military expertise.

In a world where we want to integrate critical minerals, strategic infrastructure and shipbuilding elements, among others, in the defence sector, the Port of Saguenay plays an important role and is extremely well positioned to help the country achieve its objectives, both in terms of investments and in terms of concrete achievements in the defence sector.

[English]

The Chair: Thank you.

We'll go to Mr. Martel, followed by Mr. McKinnon, for five minutes each.

[Translation]

Richard Martel: Thank you, Mr. Chair.

Mr. Laberge, I believe that the Port of Saguenay also collaborated with the Davie shipyard. What did that collaboration entail?

Carl Laberge: In the past, regional companies have been involved in building vessel modules at the Port of Saguenay. It's a bit like playing with Lego blocks, so to speak. These modules were partially processed at the port, then shipped on barges to the Davie shipyard for assembly there. We used to play that role.

As we upgrade our infrastructure and develop our industrial capabilities, we're still working with these companies and the Davie shipyard so that we can help them with future contracts and participate in the construction of Coast Guard or military vessels.

Richard Martel: Thank you.

Mr. Williams-Jones, it takes a long time to complete a mining project. It takes 20 years. That's a long time. I have an issue with this. I refuse to believe that it can't be done in less time. I know that a number of steps are involved. How could we make the process faster? We're losing our people. They'll most likely choose to go elsewhere, quite often, before choosing to come to us. What could we do to keep them? What could we do to shorten the time frames?

• (1720)

A.E. Williams-Jones: Good question.

The major issue is that it takes a long time to explore a deposit in order to develop a resource. That's the first step.

Obviously, many pieces of legislation and regulations pertain to the environment. Many studies must be conducted. This takes a long time. I don't know exactly how we could easily reduce the time required to start a mine.

If we were in China and we had a resource, we wouldn't need to comply with regulation 43-101 on mining project information. We could start mining tomorrow. China has the great advantage of being willing to accept risk. In our system, it's much harder for companies to take risks.

There are currently many barriers. Perhaps the government can take steps to alleviate these barriers. It could review all regulations concerning mining and see whether any provisions could be removed without affecting the environment, and it could do so quickly.

The issue stems in part from an incident that occurred in Indonesia in the 1990s. A small Canadian company, Bre-X, broke all the rules and ended up creating a huge disaster. I don't know whether you're familiar with this case. Ultimately, Bre-X had no resources on its land, even though many people had bought shares in the company thinking that it had significant resources. It was a serious issue. That's why rules were added to regulate the mining sector. Perhaps some of those rules could be removed.

Richard Martel: Mr. Desaulniers, can mining projects remain viable without processing plants?

Eric Desaulniers: In our case, it would be viable, but on a smaller scale. It wouldn't be viable at 100,000 tonnes, but it would probably be viable at 30,000 tonnes. At 100,000 tonnes, it needs the market for lithium-ion batteries, which require processing. Otherwise, the ore must be sold to China for processing there.

[English]

The Chair: Thank you.

Completing our third round, we have Mr. McKinnon, for five minutes.

Ron McKinnon (Coquitlam—Port Coquitlam, Lib.): Thank you, Chair.

My questions are for Professor Williams-Jones and Dr. Vasyukova.

Professor, you spoke of the need to be close to infrastructure. You mentioned Lackner Lake, which is close to infrastructure, and Ashram, which is also close.

What kind of infrastructure are we looking at, and what's the scale of it?

That's an easier question than the one I'm going to really ask you. You spoke of the importance of the concentration of these ores in terms of making them economically viable for extraction. Do these extractions happen at site, or is this part of the infrastructure you need to build? How are they powered? Do you need more electrical power, do you need more gas power, or whatever?

It's a huge question for you; please do your best.

A.E. Williams-Jones: Very quickly, first of all, obviously our first problem is transportation of the ore to somewhere where we can actually do a lot of refining. Then there's the energy. Clearly, we have to concentrate the elements of interest at site. We have to do as much as we can to reduce the mass of material that is shipped out. So those are the two initial problems: energy and transportation.

The next problem, then, is how to go about reducing the amount of material we need to ship out. I pointed to the metallurgical side. Part of that metallurgical work has to be done on site. We have to reduce that material. We have to really invest in research to develop the methods to extract successfully. The problem with these critical metals we're talking about is that we don't have the years of experience we've had with the base metals and precious metals and so on. We're in new territory. We do need to invest in this research.

I'm going to change the subject slightly. I really think the federal government has a huge responsibility to educate the populace on critical metals. The reason I say this is that it impacts immediately on investment. If the population doesn't know why we're hunting niobium, or why we're looking for rare earths, then why should they actually invest?

I'll give you a really good example. How many people know that niobium has the highest threshold of superconductivity of any element? Well, you can ask who cares, but the point I'm making is that perhaps we are interested in magnetic levitation trains, and for that you need niobium. How many people know this? Can you imagine a Canada where we have a supertrain that goes from Montreal to Vancouver in eight to 10 hours? This is not pie in the sky. The Chinese already have one operating at over 600 kilometres an hour just outside Shanghai. The Japanese are planning to have a maglev train that runs from Tokyo to Nagoya, a distance of 300 kilometres, in about 40 minutes. This is something that we could educate the populace about. That would drive investment in the critical metals area. I've given you one example, but there are many examples like that.

I know I changed the subject, but I really wanted to hammer this point through.

● (1725)

Ron McKinnon: I appreciate the information.

To go back to transportation, what is the scale of this? Is this something where we need a steady stream of semi-trailers? Do we need rail transport, or is it something like diamonds? I have no idea of the scale of the finished product. Diamonds you can fly out of the mine in a Twin Otter, right?

A.E. Williams-Jones: Exactly. It depends enormously on the critical metal you're talking about.

For example, if we're talking about lithium—we've talked a lot about lithium—what is the ore mineral? It happens to be the mineral spodumene. If you're going to extract lithium from the spodumene on site, there's a huge capital investment to do this. If, however, you make a spodumene concentrate, the mineral that's containing it, well, you'll have a lot of material that you have to transport out.

Basically, there is some sort of compromise somewhere between how much you extract on site and how expensive it is to do this in terms of capital expenditure as well as operating expenses. It's a difficult question to answer, because we need a lot more research in this area.

The Chair: Thank you for that excellent question and excellent response.

Colleagues, we're down to our last round. To conclude our questioning of witnesses, we have Mr. Tochor for five minutes, Mr. Guay for five minutes and Mr. Simard for 2.5 minutes. Then I have a short request of the committee at the end of our meeting.

Mr. Tochor.

Corey Tochor: Thank you very much.

I would like to learn a little more about the finite business. I understand it's sold in pounds. What is the world price of graphite right now?

Eric Desaulniers: With regard to the world price for active anode material—it's transformed graphite—I would say that there are very few reliable indexes. One we followed in our offtake agreement is Benchmark Mineral Intelligence from the U.K. I would say that it's about \$7,000 per tonne. That's \$7 per kilogram of active anode material.

A good thing that we have in Canada is cheap hydro. It helps a lot, having the mine close to the transformation site. We can do this transformation for, give or take, \$3.80 per kilo. On OpEx, we're very competitive.

We need to build those projects. Construction costs are important. We need to amortize those assets. We need to make a profit because the capital cost isn't zero here. That's the challenge to making a good project, but it's doable.

● (1730)

Corey Tochor: That's wild—\$7,000 for a tonne. For some of those production costs, we're the lowest in the world. We should be leading the world.

How many thousands of pounds of graphite have we exported this year as a nation?

Eric Desaulniers: Active anode material is 100% coming from China.

Corey Tochor: So, it's from China. What about Africa?

Eric Desaulniers: It's not active anode material. The concentrate of graphite is flake graphite. You're right that in Canada we are a producer in flake graphite, about 2% of the market. It's not so big; we have one mine. It's depleted, and the cost of operation is quite high because they're scratching the bottom of the pit.

Corey Tochor: I understand that it takes 18 years now, under Liberal regulation, to get a new mine up and running. There's nothing in probably my working lifetime that's going to be running, unfortunately.

There are other countries that are finding capital. It sounds like you have a specific issue with raising capital here in Canada. The Chinese have figured it out. Other companies have figured it out. It must be some of the over-regulation that the Liberals have introduced in the last 10 years that has extended the mine's development time. Is that accurate?

Eric Desaulniers: We have this opportunity with our project to be this big mine of the G7. We've done all of the hard work on permitting already. We have the chance to be managed by the provincial ministry of the environment.

Corey Tochor: I do respect the Constitution. I do believe that Quebec is probably positioned properly to best regulate this.

I'm going to cede my time to my colleague Mr. Simard for the last two minutes and 16 seconds.

[Translation]

Mario Simard: Thank you, Mr. Tochor.

As you can see, even committees have some form of equalization. It's good.

Mr. Williams-Jones, I really appreciated your remarks. I understand that the rare earths and critical minerals in question today require much more complex processes than the ones seen in the past. One challenge would be for companies to successfully mitigate the risks associated with these types of processes. Is that right?

A.E. Williams-Jones: Yes. Exactly.

Mario Simard: Okay.

Speaking of risk sharing, I spoke earlier about the rare earths consortium project. We met with representatives from that consortium. If you also had a critical minerals deposit in a selected location where you could carry out refining operations and create a type of hub for this sector, would things proceed more quickly?

A.E. Williams-Jones: I think that the answer should be yes. If we can mitigate the risks associated with mineral extraction and development, it will be good for the country. This will reduce the time needed from the exploration stage to the extraction and sale of minerals.

Mario Simard: Thank you. It's always good to ask a witness a question when you know the answer will be yes. It's great.

Mr. Laberge, as of today, does the Port of Saguenay have the infrastructure needed to meet a demand for the export of critical minerals?

[English]

The Chair: Give a quick response, please.

[Translation]

Carl Laberge: It depends on the export volume. We're currently able to meet the demand. However, if the volume increases over time, we'll need to expand our capacity.

Mario Simard: We'll come back to this later.

[English]

The Chair: Okay.

Mr. Guay has the floor, and then we'll have Mr. Simard for a final two and a half minutes.

Mr. Guay, you have five minutes.

[Translation]

Claude Guay: Thank you, Mr. Chair.

My question is for Mr. Desaulniers.

The federal government has limited capacity when it comes to investing funds. It spends taxpayers' money, of course.

Mr. Carney said that he wanted to attract hundreds of billions of dollars in private capital. He spoke about your impressive lineup of shareholders and investors.

I would like to know where federal government or taxpayer money can be invested so that \$1 generates \$10 in private investment. What should be done, what are the conditions and what are the best places to invest, based on your experience?

• (1735)

Eric Desaulniers: Last week, for example, I was part of a Quebec government delegation to Japan and Korea, where I also met with our clients. I had some fairly privileged discussions with officials from the department of economy, trade and innovation in order to promote investment in Canada. That's really our focus with Mitsui and Panasonic. All the G7 countries are in a similar situation and need to find alternative sources of supply to China.

To position ourselves as a leader, our best contribution to the G7 countries consists of proposing mining projects that are ready for construction and financing. We can use the necessary tools to mitigate the risks involved in financing these projects and then start the construction. That way, we can sell the quantities of products that our allies need. We can play a leading role in this area.

Right now, in terms of government initiatives, I'm hearing that we must do something other than try to compete with China in the way that it finances projects, meaning with zero-cost capital. We can't do that in Canada.

We need the right financial tools to secure supplies and enter into offtake agreements and contracts for difference, similar to the mandate obtained by the Canada Growth Fund a little while ago. We must ensure that we understand this mandate and take it to another level. This is how we can stand out among the G7 countries in our capital market economy.

The right financial tools would help us attract capital market investment in critical minerals. We're starting to see many examples of these tools at work in the United States. Americans are creative. By using these tools, they manage to secure the investments needed for projects. We must see what we can do in Canada using similar tools, which cost much less and which provide much greater leverage to attract capital market investment down the road.

Claude Guay: Thank you.

[English]

Mr. Williams-Jones, if I'm an investor, then I love the idea of having access to rare earth critical minerals within a couple of hundred kilometres of a major centre. My transportation costs are going to be low. Of course there will be enthusiasm from the investor market for this, which is what you're suggesting, so what's missing? Is it because we don't know the process for the type of geology you're talking about? Does it need to be refined before the investors show up and say, "Fantastic. We can do it close to Timmins"?

A.E. Williams-Jones: Many of these deposits, or the complexes, are close to major centres, but they've suffered from a lack of exploration. For example, the company I'm representing today, I.E.P., has an interesting property. There's been no drilling there. There's some exposure, and they've been trying to, basically, raise enough money to actually have some exploration going on. We need to promote that exploration. That property will just stand there unexplored.

It was explored in the 1950s. In the fifties, there was a resource of about 150 million tonnes of niobium, lowish grade, but if you open-pit it, it could potentially be an economic resource. What is missing there is that there's been no exploration of the rare earths, ever, but the potential is enormous. We need to have a company with enough money to start drilling holes to see if that resource is there. There are lots of these little companies that own claims on projects that are close to major centres, but they don't have the money to actually take the step, and they can't interest the majors because they haven't gone far enough.

The Chair: Thank you.

Monsieur Simard, the last question goes to you for 2.5 minutes.

[Translation]

Mario Simard: Thank you, Mr. Chair.

Witnesses, thank you for joining us. I encourage you to submit a brief if you want to add any information. It could be quite helpful and it would make the analysts' job easier.

We were also supposed to speak with Louis Ouellet today about the northern transportation corridor project. Unfortunately, he was unable to appear. Nevertheless, I would like to briefly touch on this topic by turning to you, Mr. Laberge.

The federal government is trying to extract critical minerals. We know that northern Ontario and northern Quebec have a concentration of valuable minerals. We also know that we need to improve the flow of transportation.

We don't have this type of map in front of us. I encourage you to submit one. However, if we had one, we would see an increase in mining projects around an existing rail line that needs upgrading. At the same time, we would see that this rail line can easily reach the Port of Saguenay.

In the near future, what types of investments do you think should be made in both the Port of Saguenay and the rail line? What might this look like? I also encourage you to submit any documents on this topic.

• (1740)

Carl Laberge: I can tell you all about the investments needed in the Port of Saguenay.

In the relatively short term, the necessary investments would be around \$150 million for improvements to port facilities and \$150 million for the implementation of basic infrastructure for industrial development. In addition, Hydro-Québec and Énergie must invest in energy infrastructure at the Port of Saguenay. We know exactly how much this will cost. We're ready to act quickly to put this infrastructure in place.

In terms of the rail system, some figures have been put forward for improvements at the regional level. Improvements in these areas can also be carried out in phases. We've heard a figure of around \$700 million for the region.

Mario Simard: I just want to clarify one thing for the committee. Based on your expertise, this can't be compared to the investment needed to transport critical minerals from northern Ontario to Hudson Bay. Is that right?

Carl Laberge: As far as I know, the advantage of this project is that the tracks already exist. They just need an upgrade. We aren't talking about installing new corridors. We also aren't talking about existing rail lines found throughout the country, but about very prolific mining areas with existing rail lines that need some upgrading.

These rail lines actually connect two provinces. That's what makes this such a great opportunity. The advantages include speed, location and relatively lower costs compared to other places. They can also be put into service quickly, since they already work. However, they can work even better. In addition, projects are already in the pipeline in these areas.

Mario Simard: Thank you.

[English]

The Chair: Colleagues, that's all the time we have for our witnesses. On your behalf, let me thank our witnesses for very informative testimony.

I think you could tell that MPs were very engaged in the discussion today. As Monsieur Simard mentioned, please, if you would like to submit a brief, I know it would be welcome by us and by our analysts.

May I give a final shout-out to Professor Williams-Jones for getting us all excited about rare earths. I married a geologist's daughter, and I had not heard the terms niobium or carbonatites. Thank you for introducing those new terms and this very exciting field you're involved in.

Thank you, Ms. Vasyukova, for joining us as well.

Colleagues, just before we break, the clerk has reminded me that we have another study on forestry coming up. It's suggested that we submit our witness lists on or before October 13, so that the analysts can start working on panels. As you know, these are living lists. We do adjust them as the study goes on, but we'd appreciate your witness lists being submitted on or before October 13.

With that I'll entertain a motion to adjourn.

• (1745)

Ron McKinnon: I so move.

The Chair: The meeting is adjourned.

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