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Chair: The Honourable Judy A. Sgro





## Standing Committee on International Trade

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• (1105)

[English]

**The Chair (Hon. Judy A. Sgro (Humber River—Black Creek, Lib.)):** I call the meeting to order. Welcome to meeting number 28 of the House of Commons Standing Committee on International Trade. Today's meeting is webcast and is taking place in a hybrid format, pursuant to the House order of January 25, 2021.

Pursuant to Standing Order 108 and the motion adopted by the committee on Monday, March 12, 2021, the committee will commence its study of Canada's exports of environmental and clean technology goods and services.

As witnesses today, from Electric Mobility Canada, we have Daniel Breton, president and chief executive officer. From Heliene, we have Martin Pochtaruk, president. From Carbon Upcycling Technologies, we have Apoorv Sinha, chief executive officer and Madison Savilow, chief of staff. Expecting to connect soon, I hope, is the Canadian Nuclear Association with John Gorman, president and chief executive officer.

Mr. Breton, you have the floor.

Before you start, Mr. Breton, I believe Mr. Savard-Tremblay has a point of order.

[Translation]

**Mr. Simon-Pierre Savard-Tremblay (Saint-Hyacinthe—Bagot, BQ):** In fact, I do not want to raise a point of order. I just want to make it clear that Mr. Breton is the spouse of the director of my constituency office. There is no conflict of interest, but I wanted to be very transparent all the same. This will not change the work I am going to do today. I am also convinced of the professionalism of Electric Mobility Canada, which talks to all parties anyway. So it was only for the sake of transparency that I wanted to make that clear.

Thank you.

[English]

**The Chair:** Thank you, Mr. Savard-Tremblay, we appreciate that transparency.

Mr. Breton, you have the floor.

[Translation]

**Mr. Daniel Breton (President and Chief Executive Officer, Electric Mobility Canada):** Good morning.

We would like to thank the members of the Standing Committee on International Trade for their study on Canada's exports of environmental and clean technology goods and services.

Founded in 2006, Electric Mobility Canada is one of the world's leading organizations focused on the electrification of transportation. Our members range from Canadian SMEs to multinationals, including mining companies, vehicle manufacturers, electricity and charging infrastructure providers, technology companies, research centres, cities, universities, fleet managers, unions and environmental NGOs.

As such, Electric Mobility Canada is the national organization with the most experience and expertise to help advance thinking, regulation, and projects related to transportation electrification. Our members work on both components and complete electric vehicles, including cars, trucks, buses, bicycles, snowmobiles, boats or charging infrastructure. They have operations everywhere, from British Columbia to the Atlantic Provinces.

[English]

According to the “Global EV Outlook 2021”, published just a few days ago by the International Energy Agency, “Electric car registrations increased by 41% in 2020, despite the pandemic-related worldwide downturn in car sales in which global car sales dropped 6%.” According to Bloomberg’s “New Energy Outlook 2020”, by 2025, EV sales will hit 10% of global passenger vehicle sales, rising to 28% in 2030 and 58% in 2040.

According to a newly released report by TD Economics, it is estimated that by 2050, between 312,000 and 450,000 of Canada's current 600,000 direct and indirect jobs in oil and gas could become casualties of falling demand for fossil fuel, as more countries and companies commit to net-zero greenhouse gas emissions. According to another report, “The Fast Lane: Tracking the Energy Revolution”, from Clean Energy Canada, there will be approximately 560,000 clean jobs by 2030 in Canada, almost 50% of them in clean transportation.

According to a 2020 analysis by EMC—us—a Canadian electric mobility strategy, inspired by those of B.C., California or Quebec, could generate up to \$200 billion in revenue between 2021 and 2030.

We, at EMC, are convinced that with all of its expertise plus its natural and human resources, Canada is in a perfect position to become a world leader in electric mobility, in partnership with its U.S. ally. However, there's no time to waste, since other regions, like Europe and Asia, are accelerating their investments in the EV industrial revolution.

EMC fully supports the Canadian and U.S. governments' agreement on the importance of the development of a zero-emission vehicle future and a battery strategy. That's why we recommend that Canada develops its own electric mobility strategy that includes a ZEV supply chain strategy, more charging infrastructure, ZEV rebates, education and training, and finally ZEV regulations, since voluntary measures won't be enough for Canada to reach its climate and ZEV adoption targets.

We also recommend that Canadian and American EV-related companies get access to our own strategic minerals and metals. We recommend that Canada doesn't end up just exporting its natural resources to where they will be transformed into finished products for electric vehicles, meaning that the added value will be outside the country. We recommend that Canadian EV products, technologies and services get access to the U.S. market.

With many members of EMC already exporting or about to export to the U.S., we recommend that we address the issue of the buy America act to see how both countries can work together on a North American EV strategy inspired by the one in Europe.

Finally, we recommend that we transition to green procurements as a way to help innovative companies in the EV industry in Canada and in the U.S. This is an issue that EMC addressed in its February 2021 document called "Public Procurement of Electric Vehicles, Recharging Infrastructures and Related Products/Services in Canada".

• (1110)

[Translation]

That is why Electric Mobility Canada, in collaboration with other Canadian industry stakeholders, will formally announce in June the launch of a Canadian electric vehicle supply chain initiative to help accelerate Canada's industrial transition to transportation electrification. Later, time permitting, Electric Mobility Canada will make seven recommendations to accelerate Canada's economic recovery and exports through transportation electrification.

Thank you.

[English]

**The Chair:** Thank you very much, Mr. Breton.

We will move on to Mr. Pochtaruk, president of Heliene.

Please go ahead, sir.

[Translation]

**Mr. Martin Pochtaruk (President, Heliene):** Hello, my name is Martin Pochtaruk, and I am the president of Heliene.

First of all, I would like to thank Terry Sheehan, the Member of Parliament for Sault Ste. Marie, for his invitation to participate in today's meeting of the Standing Committee on International Trade.

[English]

Manufacturing in northern Ontario since 2010, Heliene is a real asset business with two core business lines that are synergistic. Each of these are positioned for significant growth as a result of the massive macro forces driving renewable energy production and the electrification of—

**The Chair:** I'm sorry, Mr. Pochtaruk. You have my apologies for interrupting.

We need to suspend the meeting for five minutes due to some technical difficulties we are having.

I will suspend the meeting for a couple of minutes until we can get the difficulties corrected.

• (1110)

(Pause)

• (1110)

**The Chair:** I call the meeting back to order.

Mr. Pochtaruk, please start again from the beginning, sir.

Thank you.

[Translation]

**Mr. Martin Pochtaruk:** Hello, my name is Martin Pochtaruk, and I am the president of Heliene.

First of all, I would like to thank Terry Sheehan, the Member of Parliament for Sault Ste. Marie, for his invitation to participate in today's meeting of the Standing Committee on International Trade.

• (1115)

[English]

Heliene started manufacturing in northern Ontario in 2010. Our business consists of two businesses. On one side is a core solar PV module business supported by a global supply chain and local advanced manufacturing capabilities that allow it to scale rapidly and arbitrage the latest evolving solar cell technologies to ensure that its products are always market-leading on quality and cost. Heliene is, in fact, the only tier one North American-based solar module producer, as listed by Bloomberg, due to its bankability.

The second business is an emerging value-added integrated solar-powered product business, leveraging the knowledge gained in solar power and technology integration, having developed and positioned to grow an innovative pipeline of critical renewable products. Heliene is, in fact, the only solar module producer in the world to have industrially produced solar modules that are launched to space in order to power satellites.

We're here today to review how the state of play of Canada's international trade relationships has impacted Heliene over the last several years. Specifically, Heliene has had to contend with several challenging developments in trade policy, first with China and, after that, more importantly, with our neighbour to the south.

On China, Heliene and another Canadian solar module producer, Silfab Solar, successfully prosecuted in 2015 an anti-dumping duty case against imports of Chinese solar modules into Canada; such anti-dumping and countervailing case was just successfully renewed for another five years last March. The United States began to restrict Chinese solar cell and module access to its market through the imposition of steep anti-dumping and countervailing duties starting in 2012 and then again in 2014. Heliene was a beneficiary of the U.S. import market restrictions as a Canadian producer. That is, Heliene's distinct Canadian-made products were viewed as both attractive and politically correct by our U.S. customers.

Regrettably, the state of play changed dramatically, and for the worse, beginning in 2017 with the arrival of the Trump administration. Following a section 201 safeguard investigation, the United States International Trade Commission and the Office of the United States Trade Representative conducted extensive investigations of the U.S. solar market and the role of imports in such a market. Heliene, together with other Canadian producers, successfully persuaded the ITC to recommend that the U.S. Trade Representative exclude U.S. imports of Canadian products from any safeguard relief adopted by the Trump administration.

Notwithstanding this, in a first among many firsts in the Trump administration and in blatant violation of the U.S. obligations under NAFTA, President Trump elected on February 7, 2018, to include Canadian solar modules within his four-year global safeguard measures. Specifically, of greatest consternation and adverse financial impacts to Heliene and Canadian clean-tech jobs, the safeguard imposed a declining tariff from 30% ad valorem on U.S. imports of Canadian solar modules. It pains me to say that this is the same safeguard tariff rate applied to imports from China.

This debilitating tariff against Canadian exports to the U.S., our main market, remains in force today despite the best efforts of both the Government of Canada and Canadian industry, though the tariff has now declined to 18% pursuant to a further presidential proclamation that yet again refused to exclude Canadian imports from the safeguard measures.

Our difficulties are particularly ironic, because today Heliene employs 80 people in Minnesota, where we invested in a new factory in 2018. We are now actively seeking to expand our solar module manufacturing operations there while in parallel we'll restart a now-defunct factory in the southeastern part of Florida. By the end of 2021, Heliene will employ over 140 people in the U.S. We have developed detailed plans to expand our solar module manufacturing

operations in Ontario and also in the United States, in both Minnesota and in Florida, but the safeguard tariff on the Canadian-manufactured product continues to sap both our profits and our working capital.

As such, and to very blunt, Heliene has much less leeway to make its planned investments both in Canada and the U.S., to modernize its manufacturing operations, to expand its workforce and to increase its contribution to the heightened and imperative efforts now ongoing to reduce greenhouse emissions and combat climate change.

On our issue, on December 22, 2020, the Government of Canada requested dispute settlement consultations with the United States under chapter 31 of the Canada-U.S.-Mexico Agreement. However, the arrival of the Biden administration and the entry into force of CUSMA provided both Heliene and Canada with an opportunity for a reset in our relations.

My own view is that we can and indeed we must re-establish a co-operative and productive trade relationship with the United States. At the same time, Canada must also be firm in insisting that our neighbour adheres strictly to its CUSMA obligations. The current status quo on this issue, coming from the previous U.S. administration, is simply not acceptable and is costing Heliene and its northern Ontario employees dearly, as we continue to pay a U.S. import duty for our Canadian-made solar modules.

I look forward to continuing to work with you and the government to resolve this time-sensitive matter.

• (1120)

[*Translation*]

This concludes my testimony.

Thank you for your attention.

I am now ready to answer your questions.

[*English*]

**The Chair:** Thank you very much.

We'll now move to Ms. Savilow from Carbon Upcycling Technologies.

**Ms. Madison Savilow (Chief of Staff, Carbon Upcycling Technologies):** Thank you so much for inviting Carbon Upcycling to speak today.

Canada has an amazing opportunity to be a leader in the export of clean technology, both on an industrial scale as well as on a consumer level.

One of the strategies we've taken at Carbon Upcycling is to develop a consumer product brand called "Expedition Air", which aims to bridge the gap between innovative climate solutions and the public perceptions of them.

By creating products made from captured carbon emissions, we make novel innovation accessible to consumers with the goal of de-risking the uptake of these technologies from a buyer perspective.

On a consumer product front, we've partnered with product developers and manufacturers from over six countries outside of Canada, showing global buy-in of these materials made from captured carbon emissions.

Our plan is to partner with larger brands to change the status quo on using these types of materials. We're currently in discussions with half a dozen companies that are interested in integrating Carbon Upcycling's materials into their supply chains. These partnerships, because not a lot of companies are doing this type of consumer work, would make us and, in turn, Canada, a leader in consumer products made from waste material.

I'll now pass it off to Apoorv to discuss more the industrial use of our technology.

**Mr. Apoorv Sinha (Chief Executive Officer, Carbon Upcycling Technologies):** Thank you, Madison.

As a nation of just under 40 million people, Canada has already done a fair bit in terms of investing in carbon utilization technologies and moving the needle to show how carbon can be reused to enable the circular economy that we think we need to be able to hit our targets for 2050 and 2100.

Over four of the recently concluded Carbon XPRIZE finalists were companies from Canada. These were companies that were changing carbon emissions into construction products and into plastic materials and a range of other end products such as those Madison mentioned for consumer product use.

Within the clean-tech sphere, the idea and the notion of how [*Technical difficulty—Editor*] in Africa and to a certain extent parts of Europe and the States, where costs can be the biggest driver.

Looking at this from an export perspective, what's important to note is that the normal way of trading goods and services across the border, such as having cars built in Ontario and sent over to the States, for example, is not something that translates very well to the context at hand. Instead, what is required is a long-term view as to what is required to build our society better and how to retrofit very long-term facilities, which run for anywhere from 30 years to 50 years, in a way that has a made-in-Canada tag on it.

One silver lining in the way the U.S. tackled the COVID-19 pandemic was Operation Warp Speed, where they were able to bring a whole range of resources together. Although their initial ways of curbing the curve weren't as effective as ours were in Canada, the way they were able to develop vaccines and build capacity to roll them out at a rapid pace is something that no one else in world has been able to achieve.

We think that with the types of opportunities Canada has already begun nucleating, such as the clean-tech export program, there is a foundational element there that can be further evolved into a longer-term partnership with our partners in Europe, the States and other parts of the world that are rapidly emerging and growing. Through such initial partnerships, companies such as ours can go out to those regions for two to three months at a time and look at

identifying local partners. This could be done over a longer period of one to three years and enable companies with capacity issues, which most start-up companies have, to translate these partnerships and MOUs into longer-term engagements where businesses produce not only on the Canadian side but on the partner side as well.

I'd be more than happy during the questions to discuss some of the experiences we've had through CanExport and other programs, but I would like to finish by saying that the space around clean tech, and especially around circular economy and carbon emissions or carbon tech, is in a very exciting stage. Just in the last four months alone, we've seen major commitments come from companies such as LaFarge, Cemex and CRH, which are talking about reducing the carbon emissions of their products by 30% to 50%.

There are other companies in plastics and a range of industrial products that have come in and talked about scope 1 and scope 2 carbon emission neutrality by 2030, or in some cases by 2050. Within that scope, Canadian entrepreneurs have already shown that they can play a massive part in helping these companies enable their achievement of these targets. We're very excited about seeing how policy at the federal level can further support this.

Thank you.

• (1125)

**The Chair:** Thank you very much, Mr. Sinha.

We will move on to the Canadian Nuclear Association and Mr. Gorman, president and chief executive officer.

Mr. Gorman, you have the floor.

[*Translation*]

**Mr. John Gorman (President & Chief Executive Officer, Canadian Nuclear Association):** Thank you, Madam Chair and members of the committee, for the opportunity to appear before you today to discuss international trade and the opportunities associated with the export of clean energy technologies through the Canadian nuclear industry.

[*English*]

My name is John Gorman. I've been president and CEO of the Canadian Nuclear Association for the past two years. Prior to that, I worked seven years as president and CEO of the Canadian Solar Industries Association. I've been a developer of renewable energy projects, sat on the boards of utilities and was Canada's representative to the International Energy Agency for solar. I've spent over 20 years championing Canadian clean energy solutions.

As the members of this committee know and recognize, international trade is and will be a key component of Canada's efforts in recovering from the negative economic impact of the COVID-19 pandemic. International trade is also a key component to meeting climate change goals, especially the export of clean energy technologies that will assist high carbon-emitting regions in their efforts to reduce emissions.

In addition, there are significant geopolitical shifts occurring in international trade that represent opportunities but also the challenges that will impact all exporting sectors in Canada and beyond.

First, I'll give a brief introduction to the Canadian Nuclear Association and our membership. The CNA represents about 100 members across the nuclear industry. This includes uranium mining, nuclear utilities and CANDU supply chain companies across Canada, the majority of which are in Saskatchewan, Ontario and New Brunswick.

The Canadian nuclear industry is key to meeting Canada's ambitious net-zero and climate change targets. As witnessed at the recent climate leaders summit hosted by U.S. President Biden, world leaders, including Prime Minister Trudeau, announced new and ambitious emissions targets that will require a strong role for all non-emitting technologies, including nuclear. For our industry, this represents a global opportunity for larger CANDU reactors, promoting uranium exports that offset emissions. It also includes supporting technology development efforts for small modular and very small modular reactors that provide opportunities for developing countries, remote regions and high-carbon industries to reduce emissions.

The Canadian government has a significant role to play in partnership with the nuclear industry's efforts to deliver on the global transition to a low-carbon economy by promoting and helping to develop the industry in Canada, and then smoothing the path for the international sale of uranium and nuclear goods and services.

Nuclear power generation enables the clean electrification of other sectors and regions that have high carbon footprints. It also creates new economic opportunities that enable a clean energy transition that will bring economic and social benefits.

For instance, Cameco is one of the world's largest uranium mining companies and is the largest employer of first nations in northern Saskatchewan, which enables those communities to grow and flourish. Canadian uranium displaces the equivalent of some 550 million tonnes of carbon dioxide in greenhouse gases per year.

We're pleased that the federal government recognizes nuclear as being a key component of its climate plan, its hydrogen plan and its small reactor action plan. Its inclusion in key programs such as the strategic innovation fund and new net-zero accelerator that are administered by Innovation, Science and Economic Development Canada will go a long way to promote clean energy technology solutions in Canada and beyond.

There's a significant opportunity associated with enabling greater exports for nuclear. These include uranium exports and CANDU technology opportunities, as well as the emerging SMR or small module reactor market, all driven by the globe's efforts to meet the climate challenge.

Wherever there is a CANDU nuclear power plant in the world, it is essentially a potential opportunity to export Canadian services, know-how and expertise. I would argue, as would your trade commissioners, that each existing power plant represents a trade priority, as do new-build opportunities in existing and new markets such as Romania.

As well, there are opportunities to contribute to nuclear development beyond the CANDU brand, such as light water reactor development, waste-recycling fuel and reactors, fusion, waste and decommissioning, and the development of the isotope market.

• (1130)

For small modular reactors, or SMRs, the domestic opportunity here is about \$5.3 billion between now and 2040. The world market is going to be between \$150 billion and \$300 billion a year in the same time frame. Canadian workers and communities benefit every year from the revenues generated by Canada's investment in nuclear technology. There are further export opportunities Canadians can pursue from exporting uranium, CANDU technologies and their supply chain, SMRs and isotopes.

Examples of our member companies who export goods and services in these areas include Cameco, based in Saskatoon, which mines some of the planet's richest uranium deposits and exports their products worldwide; BWXT, which is based in Cambridge and manufactures steam generators and other power plant components for export to China and elsewhere; L3Harris, based in Montreal and Dorval, one of Canada's most diversified defence and security companies, which makes control room simulators for power plants; and Nordion of Kanata, a leading provider of medical isotopes and other health technologies.

As committee members are likely aware, demand for clean energy is driving reactor technology to new frontiers: smaller and more advanced reactors. We liken this to the computer's transition from mainframe to laptop, a shift that dramatically changes, not only the device itself but also the range of applications it can be used for.

Canadians and our federal government established an early lead in small modular reactors with the 2018 SMR road map project. As the world looks for ever more energy and ever more clean energy, these versatile, clean units will be exported across national boundaries to meet real human needs. Our industry is very well positioned to be part of that story in the decades ahead.

Overall there is growing interest in key markets such as the Middle East, Africa, eastern Europe and Asia in Canadian technologies and in Canadian presence. Romania, a member of the European Union and one of our NATO allies, is a country that chose Canadian technology several decades ago, and the decision paid off. Romania has had cleaner air with a more diversified energy mix plus reliable, affordable electric energy that has helped raise its people's quality of life.

Now Romanians are interested in doing it again by building two more CANDU plants at its Cernavoda site, but there is also a risk that other countries will seize most of the benefit of this opportunity if Canada cannot bring adequate export financing to the table, commensurate with the potential scope of Canada's value-added to the project.

There is significant competition in the global nuclear industry, particularly from countries like China and Russia, whose governments fully support nuclear exports through sovereign funding. There are opportunities in working with like-minded partnering countries like the United States to create opportunities in countries such as Romania.

Canada now has an opportunity in collaboration with the U.S. to be part of this exciting multi-billion dollar project at Cernavoda, but it's bigger than that. Canada and the U.S. together can apply this model elsewhere in eastern Europe to sustain western technology leadership and compete with state actors, while also cutting GHG emissions and displacing fossil fuels.

The Canadian government needs to consider the following key points to enable more nuclear technology exports.

First, support Canadian nuclear export potential with financial support commensurate with that which is being offered by the U.S. and other countries with nuclear export potential.

Second, continue to include nuclear in domestic climate, innovation and economic policies.

Third, include nuclear clearly in trade promotion and trade policy discussions internationally.

Last, facilitate export permitting processes to be efficient to take advantage of market opportunities as they arise.

We look forward to working with the federal officials to ensure that the program's design and implementation meets the needs of the nuclear industry, which, in turn, will provide significant emissions reductions while enabling innovation and job growth.

As this committee discusses international trade for Canada and considers the role of the nuclear industry in its discussions, it is essential to understand that Canadian uranium exports and Canadian nuclear technology exports, specifically CANDU, have played a very significant role in enabling the development of key sectors in

Canada. It has also enabled Canada to have a strategic asset in the nuclear industry that enables geopolitical discussions regarding trade and international relations.

There is a significant opportunity for Canada to enable a greater role for the nuclear industry in terms of trade that would meet multiple goals: reducing emissions globally, increasing exports, creating more jobs, and fostering and reinforcing strategic relationships internationally.

• (1135)

Thank you. I look forward to any questions the members might have.

**The Chair:** Thank you very much, Mr. Gorman.

We'll go to Mr. Lobb, for six minutes, please.

**Mr. Ben Lobb (Huron—Bruce, CPC):** Thank you, Madam Chair.

Thank you to everybody who is attending the meeting today.

My first question is for Mr. Gorman.

In the small modular reactor market, where are we positioned in this country to really take advantage of that? What are some of the companies or technologies out there that are leading the way?

**Mr. John Gorman:** First of all, Canada really does have a first-mover advantage with small modular reactors. This is because of the extraordinary initiative that has been undertaken by government and industry to coordinate their plans and to lay a pathway forward that involves the utilities, the federal government and four of the provinces, the premiers of which have signed a memorandum of understanding of development and deployment of small modular reactors. It also includes our regulator, the Canadian Nuclear Safety Commission, which is quite literally a competitive advantage for Canada in the small modular reactor market.

We have begun to see some funding through the federal government and through SIF, the strategic innovation fund, for certain technologies, which is promising. However, we're going to need to see the federal government match the industry's contributions to this very detailed plan that we all share for Canada's leadership in the development and deployment of small modular reactors.

The United States and the United Kingdom, while less organized than us on the SMR front, are beginning to bring some significant funding to the table and they will soon catch up. Therefore, there's a bit of "co-opetition" going on here.

Lastly, to your question about technologies that are in Canada right now, we're the leading nation in the world in terms of the number of technologies, both home-grown and international, going through our review and licensing process right now. We have 12 different technologies suited for different applications that are going through the process.

**Mr. Ben Lobb:** Thanks very much.

In regard to the CANDU work that would be around the world, what is the total dollar value of the licensing work and maintenance work for CANDU every year? What are some other opportunities as far as new builds with CANDU technology in the next 10 years are concerned?

• (1140)

**Mr. John Gorman:** Thank you for the follow-up question. I do not have the information regarding the annual revenue generation coming from the CANDU reactors and the work we have going on in seven different countries around the world right now, but I will ensure to follow up with the committee to provide that information.

In terms of future CANDU work, the one that is most immediate is the Romanian opportunity that I mentioned. There are other countries that are actively exploring CANDU technology. The Americans have recently committed \$8 billion to pursue the Romanian opportunity, and they are looking to Canada for a contribution of between \$2 billion and \$3 billion so that we can jointly build these two new units and refurbish their existing units.

**Mr. Ben Lobb:** Maybe give the committee an idea of the potential possibilities with isotopes and cancer therapies around the world. I don't know if you have those numbers as to what the potential is for that, but I think Canada is really the world leader now in isotope production for cancer therapies.

**Mr. John Gorman:** Canada is the world leader in isotope production for nuclear medicine, primarily in the treatment and diagnosis of cancer. It is also used in a wide variety of other nuclear medical applications, including everything from diagnostics to sterilizing one-use medical equipment.

We are doing some extraordinary innovation in nuclear isotopes right now that stems from both this long history we have with our nuclear laboratories that have been producing isotopes through various lab-scale reactors, but also very exciting work that is happening now with our conventional reactors, in particular our CANDU reactors in Ontario, where innovations have allowed new forms of isotopes to be produced at a much higher scale on the conventional reactors without interrupting operations. The collaboration that is happening between our laboratories that are doing work on the isotope front and now the operators of our CANDU reactors is creating more opportunities for different isotopes at higher volumes to supply to the rest of the world.

**Mr. Ben Lobb:** Do I have time for one last question?

**The Chair:** You have 50 seconds, Mr. Lobb.

**Mr. Ben Lobb:** My question is for Electric Mobility Canada.

Obviously, we have a lot of raw materials that would go into the different components of an electric battery.

Beyond the raw materials, does Canada have a competitive advantage in any particular sector at this point in regard to electric vehicles?

[*Translation*]

**Mr. Daniel Breton:** I'm sorry. My microphone was not placed correctly. Let me start again.

[*English*]

Yes, we do have advantages, because there's a lot of knowledge and know-how in Canada regarding electric mobility, whether it's for trucks or buses. We now have electric snowmobiles coming from Canada, so we have an advantage.

Since we have the resources, the research centre and the assembly capacity, we really do have an advantage.

**The Chair:** Thank you very much, Mr. Breton.

Mr. Sheehan, please go ahead, for six minutes.

**Mr. Terry Sheehan (Sault Ste. Marie, Lib.):** Thank you very much, Madam Chair. Thank you to all our presenters for presenting on this very important subject, and our undertaking to increase our clean exports across the world.

I'm going to begin with Mr. Pochtaruk. I appreciated your testimony and some of the great things you are doing. In particular, what I found very neat was the solar panels that are being used in low-orbit satellites. Obviously, your technology is very superior to be put on these billion-dollar satellites. I also wanted to reference and base my question on an article you wrote, an op-ed in *The Hill Times*. You talked about the supply chain and where solar panels could also be deployed, and that there's some research and development going on around that.

Could you expand on those opportunities, not only in satellites but in electric vehicles and others?

• (1145)

**Mr. Martin Pochtaruk:** As I mentioned in my testimony, Helene developed, together with SpaceX, the low-altitude satellite solar modules that are being launched into space with those satellites. We have another product that is a greenhouse-integrated PV. For example, there is a greenhouse near Niagara where we utilize 4% of the roof to generate 10% of the energy requirement of the greenhouse. That means we could size up systems to have net-zero greenhouses going forward.

As many of us know, agriculture is one of the main contributors to greenhouse emissions. Therefore, by advancing the integration of PV, of solar-powered generation in the greenhouses, we can diminish the footprint of greenhouses in terms of greenhouse gas emissions.

Another possible utilization we are working on is the integration of solar to actually generate renewable energy for electric vehicle charging. There are already a few companies entering this space. We know this is going to be a multi-billion dollar infrastructure business of which we want to be a part.

**Mr. Terry Sheehan:** In the same article, you wrote that the price of solar panels went down by about 90% over the last decade. That's good news, but the the American tariff is now at 18%. You mentioned that it's cutting into your working capital. I saw on your website that you're investing 5% to 8% in R and D. I'm sure that could be affected.

That 18% is also a tax on Americans and Americans that purchase our particular solar panels. Would you agree? If you delve down into advice, what advice would you give to the trade officials as they go forward with your suggestion of a renewed optimism with the Biden administration? I know the minister, in January, issued some statements and began a consultation process.

I'll open it up there, and let you delve into that a bit.

**Mr. Martin Pochtaruk:** According to chapter 31 of the Canada-U.S.-Mexico Agreement, dispute resolution has to take place if there is no agreement between the Canadian government and American government on taking off the unlawful import duties. I understand that right now there are ongoing conversations between the remedies department of Foreign Affairs Canada and the U.S. Trade Representative. Canada is waiting to kick off that dispute resolution in an attempt to solve this issue amicably. However, there's only so much we can do. As industry, we rely on the government to bring this issue to the U.S. government as soon as possible.

We have been paying this tariff for three and a half years, and there was no possibility of amicable discussion with the Trump administration. That's why right now Foreign Affairs is on guard to start the dispute resolution as soon as possible, if there is no possible way to do it amicably.

• (1150)

**The Chair:** Thank you very much to everyone.

We'll go to Monsieur Savard-Tremblay for six minutes, please.

[*Translation*]

**Mr. Simon-Pierre Savard-Tremblay:** Thank you, Madam Chair.

I thank all our witnesses for their contribution.

Mr. Breton, you have been involved in the various electric vehicle shows. When you go around them, you realize that there are many SMEs and that, in terms of dynamism and electrification of transport, the SMEs are at the heart of Quebec.

However, much of the funding comes from the Strategic Innovation Fund. According to the available data, most of the money has gone to Ontario-based multinationals, not to innovative SMEs in Quebec.

Should we review the criteria? If so, how would we do this?

**Mr. Daniel Breton:** Yes, we are in favour of an innovation program specifically focused on electrifying transportation. According to the Speech from the Throne, the budget, Canada's climate plan,

and the agreement with the Biden administration, the government wants to speed up the electrification of transportation. In our opinion, having a fund established solely in order to electrify transportation would be a very wise decision.

The criteria also need to be designed so that SMEs, whether in Quebec or elsewhere in Canada, can be eligible, because a number of innovating companies, for example in British Columbia, Nova Scotia or Quebec, want to speed up the electrification of transportation.

Take Taiga Motors, for example. The company was founded by three students from McGill University. They build electric snowmobiles but they had no access to funding of that kind. So they went to the United States to get development funding.

In terms of electrifying transportation, a lot of innovative companies are often startups or SMEs. That's also the case with solar energy and renewable energy. That is why we feel that SMEs should be eligible for programs of that kind.

**Mr. Simon-Pierre Savard-Tremblay:** No question about that, in my mind.

Then we have the famous Buy American Act. A number of my colleagues sit on the Special Committee on the Economic Relationship between Canada and the United States. These days, it's a full-time study for us.

First, should we have a similar requirement, with a view to coming to an understanding with the United States at some stage so that we can obtain contracts?

Then, would support like that pass the test of the agreements and the rules around international trade?

**Mr. Daniel Breton:** Electric Mobility Canada suggests that we develop our own Canadian strategy for electrifying transportation, rather than having piecemeal programs. We want a comprehensive vision for electric transportation, as is the case in Europe. President Biden and Prime Minister Trudeau have stated that they want to work together to develop a Canada—USA strategy for electrifying transportation.

Members of Electric Mobility Canada are selling their products in the United States and have already had to establish facilities. For example, New Flyer and Nova Bus have opened plants in the United States.

We feel the need for a kind of North American Act, a way of saying that we want to work together and decrease greenhouse gas emissions more quickly in Canada and the United States, because climate action is urgent.

In 14 years, Canada's greenhouse gas emissions have decreased by 1%. We now want to decrease them by 39% in nine years. Negotiations therefore have to happen quickly. Canadians and Americans have everything to gain from working together, especially since the North American automotive market is so integrated.

**Mr. Simon-Pierre Savard-Tremblay:** However, the United States could say that they really have no need to do that, because they have a number of companies, especially in Silicon Valley in California, and that their technology is more advanced.

In other words, why do they need us?

**Mr. Daniel Breton:** I feel we could work collaboratively. When I was responsible for the Quebec government's strategy to electrify transportation, I persuaded that government to come to a collaborative research and development agreement with California. The agreement was signed and it is still in effect today.

We have complementary expertise. In terms of natural resources, Canada has the strategic critical minerals that the United States wants. We must not forget one extremely important point: at the moment, 96% of the batteries for electric vehicles are made in China, Japan and Korea. For geopolitical reasons, as well as economic and environmental reasons, a collaboration between Canada and the United States could counter our dependence on strategic resources and batteries for electric vehicles. The collaboration would result in a North American strategy to electrify transportation.

The same thing happened in the 20th century with oil from the Middle East. We do not want to find ourselves in a vulnerable situation when it comes to electrifying transportation.

• (1155)

**Mr. Simon-Pierre Savard-Tremblay:** You talked about batteries. Do you believe that we could be self-sufficient in that respect in the near future?

**Mr. Daniel Breton:** I don't think that we can be completely self-sufficient, but we could be much less dependent on batteries from China, Korea or Japan, because we could develop the expertise.

The Government of Canada and the Government of Quebec worked together to announce the launch of a battery plant for Lion Electric. Other projects are in development. The United States is moving in that direction too, because they are realizing that the key to electrifying transportation is in the batteries and the power trains.

Canada has the resources and we have to make use of them. We have to use our advantage and make sure that we have control of the resources, in the interests of national security.

**Mr. Simon-Pierre Savard-Tremblay:** Thank you, Mr. Breton.

Is my time up, Madam Chair?

[*English*]

**The Chair:** Yes, it is.

We will move on to Mr. Blaikie for six minutes, please.

**Mr. Daniel Blaikie (Elmwood—Transcona, NDP):** Thank you very much.

Thank you to the witnesses for joining us here today.

I know some of you touched on this in your opening remarks, but of course the reason we're here is to be able to make some concrete recommendations to government about what they might do to help foster success in Canada's clean energy economy and increase exports.

I'm just wondering if our witnesses would like to take this time to be quite specific about what kinds of things they think the committee ought to be recommending to government toward that end.

I see that Mr. Pochtaruk has his hand up. We can start with you, Mr. Pochtaruk, and then go down the line.

**Mr. Martin Pochtaruk:** Thank you.

We have been paying a U.S. import duty since February 2018, so there's very concrete action to be taken for Canadian solar modules being exported to the U.S., which is to work with USTR to exclude Canada from such import duties, whether it is done in an amicable way right away or, otherwise, by triggering the dispute resolution on the USMCA.

**Mr. Daniel Blaikie:** Thank you very much.

Monsieur Breton, we'll go over to you next, please.

**Mr. Daniel Breton:** As we said, we think that working on a North American act would trigger a lot of growth for Canadian industries, especially since the Biden administration talks more and more about the EV industry, getting more electric vehicles, from light-duty to heavy-duty, on U.S. roads and creating American jobs.

As we know, we have an integrated market for light-duty vehicles especially, where in Ontario many companies build parts of pickup trucks and SUVs. We are about to build electric vehicles in Ontario. We are building right now electric vehicles in Manitoba and Quebec, so we think that the North American act could be something that could work really well.

We have to make sure that for national security reasons we can have access to our strategic minerals and metals, because if we end up just exporting them to other markets to come back as finished products, we'll end up just importing the technologies and the batteries. To us, that's very important.

**Mr. Daniel Blaikie:** Can I just follow up on that?

Obviously Canada, the United States and Mexico just went through a pretty intensive round of bargaining leading up to CUSMA. There were concerns that would sometimes crop up where Canada and the U.S., or certainly Canadians, would have liked to have a more collaborative relationship with the U.S. on some files, but the U.S. response, or what was perceived to be the U.S. response to Mexico, sometimes complicated those things.

When we talk about a North American act, does that vision include Mexico? In what ways do you think that might complicate some of the supply chain relationships you're talking about between Canadian and U.S. producers, and what might be done about that?

**Mr. Daniel Breton:** That's a good question. I think it would be best to include Mexico in that, because we already have Mexico as a partner with Canada and the U.S. As well, when we're talking about the auto industry, it's a relationship that's built between Canada, the U.S. and Mexico.

However, the technology and the knowledge that we have in Canada is worth something. The natural resources that we have are worth something. As I said, with the Biden administration really pushing for a transition towards EVs, light or heavy-duty, we think the time is perfect. We just saw an agreement between President Biden and Prime Minister Trudeau regarding the development of EVs in collaboration with Canada, but I think Mexico could be included in that very well.

• (1200)

**Mr. Daniel Blaikie:** Thank you very much.

I'll go over to Mr. Sinha, who has his hand up as well.

**Mr. Apoorv Sinha:** Yes. In terms of specific recommendations, one recommendation I would have is actually road mapping a certain collaboration, either with the U.S. or the EU bloc specifically, to look at a time horizon of two to four years around adopting industrial retrofits or new industrial technologies.

As I mentioned in my opening statement, carbon technology and the space we play in is pretty unique in that you're dealing with very long payback periods for some of the installations that are being affected. Our experience thus far has been that as we've looked at business development internationally, a lot of the licensing or commercialization endeavours are looked at over a decade-long horizon, if not longer.

To have the ability to look at how employment in those two associated countries could work for a business development rep or a technology rep, or whatnot, would be quite helpful. From our perspective, having a program that doesn't just look at three or six months but rather a three-year framework of engagement would be very helpful.

**The Chair:** Thank you, Mr. Sinha.

We will move on to Mrs. Gray, for five minutes, please.

**Mrs. Tracy Gray (Kelowna—Lake Country, CPC):** Thank you, Madam Chair.

Thank you to all the witnesses for being here today. The first questions I have are for Mr. Breton.

We heard President Biden say last week that any exemptions to buy American would be "strenuously limited", which could be a real concern for our integrated supply chains. This is some of the strongest wording we've heard, and you actually spoke about this already today and mentioned that there were already some job losses and some businesses potentially moving to the U.S.

Do you have an idea of how many job losses we've had already or what this might mean for future job losses or businesses having to move to the U.S.?

**Mr. Daniel Breton:** No, I couldn't tell you that we are losing jobs in electric mobility, because right now we are creating jobs in electric mobility.

The transition is going from fossil fuels to renewable and electric mobility, so this is not something that we are talking about. We're actually looking for qualified people. We are in the middle of a pandemic and right now we are having problems finding enough qualified people, so it's going to be an issue for years to come.

If we want to create Canadian jobs and do the transition from fossil fuels to clean technology, clean transportation, if we end up being in a position where most companies have to move south or open plants down south because of the buy America act, for sure we will lose many jobs that would have been created in Canada. I don't have the numbers yet because it's too early to tell. We don't have all the details, but that's an issue of concern to many of EMC's members.

**Mrs. Tracy Gray:** That's great. Thank you for that clarification.

Would you feel that it's important to work with the Biden administration to work on standardizing regulations to strengthen vehicle emission standards? There is no doubt, of course, that our supply chains are integrated, so would that be something that would be important to work on?

**Mr. Daniel Breton:** Absolutely, because we think that having different standards.... It's an issue we've seen in other technologies and other industries, that having technologies where the regulation is not integrated is a real problem. Those of you who are old enough remember VHS versus Betamax. We have that issue in electric mobility. We have three or four standards on the way we charge vehicles, so we need to have standardized regulations and standardized codes and standards so that we can accelerate electric mobility across the board from light to heavy-duty vehicles.

• (1205)

**Mrs. Tracy Gray:** Thank you.

With clean tech being an emerging industry, there's a chance it may not be fully accounted for in our trade agreements when it comes to regulatory co-operation and non-tariff barriers. Have you faced any regulatory hurdles or non-tariff barriers in exporting your products?

**Mr. Daniel Breton:** Are you asking me that question?

**Mrs. Tracy Gray:** Yes.

**Mr. Daniel Breton:** We have. I could get into more details on that with a document I could send to you, but yes, we have, because we are seeing that.... EVs are a new market, so there's a lot of adjustment to be done, whether it's on the utilities side, the infrastructure side or the regulatory side. That's something we could work on a document about and send to you, if you want, because there are issues with that.

**Mrs. Tracy Gray:** Thank you very much. It would be wonderful if you could table that with this committee for us all to see—

**Mr. Daniel Breton:** Perfect.

**Mrs. Tracy Gray:**—and then it will be part of your testimony. That would be great. Thank you.

I'm wondering if any of the other witnesses here would like to answer that specifically, around having issues with regulatory burdens or non-tariff barriers with exports.

I see Mr. Pochtaruk.

**Mr. Martin Pochtaruk:** Yes, as I mentioned before, we have been paying millions of dollars a year, so solar modules are being taxed to be imported into the U.S. This is an extremely urgent matter that we need government to concentrate on.

Thank you.

**Mrs. Tracy Gray:** Great. Thank you.

Mr. Gorman, I see your hand up.

**Mr. John Gorman:** Conventional nuclear and CANDU technology in most nations have been sort of a proprietary thing. This is a comment on the regulatory side. With the advent of small modular reactors, which involve technology providers from all over the world, there are over 70 different technologies being developed right now. That means that we have to try to streamline regulatory treatments so that we're getting common recognition for the different technologies that are out there and we avoid having every nation reinventing the wheel each time it tries to qualify one of these new technologies.

**The Chair:** Thank you very much, Mr. Gorman.

We go on to Ms. Bendayan for five minutes, please.

**Ms. Rachel Bendayan (Outremont, Lib.):** Thank you very much, Madam Chair.

Before beginning to ask questions of our wonderful witnesses here today, I want to clarify something that Mrs. Gray said. She mentioned President Biden's speech to Congress a few days ago, and he was referring to the Buy American Act, which I believe all members of the committee know Canada is largely exempt from. The issue, of course, of buy America is very real, and our government is working very hard to secure exemptions for buy America, but his comments were with respect to something different.

[*Translation*]

I am going to turn to Mr. Breton first.

Mr. Breton, thank you for joining us today.

Without wanting to spend too much time on it, I want to quickly go back to comments made by another colleague about the strategic innovation fund.

As parliamentary secretary, I am very involved with investments designed to encourage our SMEs. I just want to mention that the fund has contributed almost \$750 million for SMEs, including some from Quebec. You already mentioned Lion Electric, of which Quebecers are very proud, of course.

We announced an investment of \$50 million to help Lion Electric build a new battery plant.

**Mr. Daniel Breton:** Absolutely.

**Ms. Rachel Bendayan:** Do you feel that those investments for companies like Lion Electric will help us to promote Canadian innovation overseas? I am thinking specifically of our innovations in electric transportation, of course.

**Mr. Daniel Breton:** You are absolutely right. I feel that the strategic innovation fund is extremely important and worthwhile. We must make sure that not only companies like Lion Electric can take advantage of it, but that small companies can do so too. Sometimes, that's not easy. Some time ago, I remember that, with the AIF, the Automotive Innovation Fund, the companies that could take advantage of it were mostly multinationals, because it needed an upfront investment of \$75 million in order to access the money. I feel that some progress has been made with the strategic fund.

However, I feel that things could be made easier for SMEs in innovation, especially young companies. I feel that this is extremely important. Earlier, I was talking about Taiga Motors. In my opinion, they are a perfect example of this kind of company. Three young students from McGill University decided to start building electric snowmobiles. No one believed in them, except maybe two or three people in Canada. Today, those young people are building a factory in Shawinigan.

We have the skills and the expertise in this country. We are talking about Quebec and Ontario, but at Dalhousie University in Nova Scotia, Jeff Dahn is working with Tesla in a research partnership. There are research centres in Canada that deserve to be mentioned. In British Columbia, Ballard Power Systems are conducting research and development into electric vehicles powered by hydrogen. People seem to forget that we are actually a world leader in hydrogen.

I feel that a fund like that, properly matched with worthwhile programs and projects, can improve the electrification of transportation enormously. I'm not talking about vehicles only, but infrastructures as well. The future of electrified transportation depends on smart and innovative infrastructures.

• (1210)

**Ms. Rachel Bendayan:** Thank you, Mr. Breton.

[English]

Mr. Sinha, I wanted to give you the opportunity to comment on the CanExport program and your experience with it. You mentioned it in your opening statement. We're certainly always looking to improve, but I would be very interested to hear what your experience was with this program.

**Mr. Apoorv Sinha:** Tangibly, I can share one story with you regarding the CanExport program from when we visited France and were looking at some partnerships there. That has been probably one of the more successful engagements we've had with a government program. During that trip back in 2015, if memory serves, we had just begun looking at the potential application of our technology within the construction market. LafargeHolcim, the large conglomerate.... At the time the merger hadn't been finalized with Holcim, but Lafarge in itself was the largest cement company in the world. We had just begun some initial discussions with them on what type of data and information they would need to further evaluate our technology's relevance to their business.

With the CanExport program, we were able to go out there, not just to Paris to meet with some of the corporate team but also to Lyon, where they had their centre of research. It was pretty instrumental in creating a long-term engagement with them. Specifically, the timing worked out pretty well, because they were in the process of launching an internal accelerator program where they wanted to identify a handful of global companies to help with various aspects of their supply chain, which ranged from construction site schedule management to supply chains and how they could more effectively work with their materials.

We think that—

**The Chair:** Thank you very much, Mr. Sinha. As you can see, everything is timing here.

We'll go to Mr. Savard Tremblay, for two and a half minutes.

[Translation]

**Mr. Simon-Pierre Savard-Tremblay:** Mr. Breton, I would like to pick up the conversation where we left it just now.

You were talking about national security. Unfortunately, that is a complex geopolitical question and we have very little time. You gave the example of the oil that we brought in from the Middle East, but that is largely up to the refineries. How do you position it as a national security issue? Concretely, how can we deal with it in the area of electrification?

**Mr. Daniel Breton:** Yes, by turning to renewable energy and greener transportation, we are indeed talking about a major change in our approach to energy and transportation. Let me remind you that 26% of Canada's greenhouse gas emissions come from oil and gas, and 25% come from transportation. Together, that makes up more than half of Canada's greenhouse gas emissions.

I would not be surprised to find that, in two or three years, greenhouse gas emissions from transportation are greater than those from oil and gas. That means, therefore, that we have to speed up the electrification of transportation. The Government of Canada has established targets for the use of electric vehicles.

If we find ourselves in a situation where major components, such as batteries for electric vehicles, are manufactured in places where we have little or no control, it can cause major geopolitical problems.

We have a clear example of that at the moment. There is a world shortage of microchips and that results in shortages of consumer products, like cars and computers. For reasons of national security, therefore, we could consider ways of securing the supply of raw materials that go into electric vehicles and gas-powered vehicles alike, because all vehicles need critical and strategic minerals. The minerals are used in computers, in armaments, in solar panels, and so on.

In the United States, measures like that have already been taken for reasons of national security, in terms of ports and oil facilities. In Canada, we have seen it with a potash company in Saskatchewan, if I'm not mistaken. We must make sure that resources on our territory are not reserved simply for foreign companies to process. The result is that we end up having to import their products at a higher price and have no control over the resource.

• (1215)

**Mr. Simon-Pierre Savard-Tremblay:** Thank you.

[English]

**The Chair:** Thank you very much, Mr. Breton.

We'll move on to Mr. Blaikie for two and a half minutes, please.

**Mr. Daniel Blaikie:** Thank you very much.

I'll go back to my initial question. I know Mr. Gorman was waiting to answer as well in terms of what some of the particular recommendations this committee might make to government are, from his point of view.

I'll pass it over to Mr. Gorman for that.

**Mr. John Gorman:** Thank you very much, Mr. Blaikie.

I would start by saying that, as the world moves to decarbonize and as we work to a net-zero 2050 future, we're seeing that economic opportunities globally are going to stem from that area.

Nations like ours have two challenges. First is how we decarbonize here at home. Second is how we help other nations around the world decarbonize so that we can hit that target. Aside from making it a safer, better world, there is of course economic opportunity to be had.

In these instances, first, to decarbonize here at home either we're going to be using our own technology, where we have expertise, like some of the presenters here before you today, or we're going to be importing technology from elsewhere. Of course, when it comes to helping other nations, we're going to need to look to the technologies where we have a depth of expertise and a real potential to help.

I'd submit to you that, with nuclear, we're a tier one nation, widely regarded as one of the best nuclear operators in the world. We also have one of the healthiest nuclear ecosystems of any country in the world right now because of the refurbishments that are going on here of all of our nuclear units in Ontario. There are 76,000 people, with \$17.3 billion of money going to the GDP each year. We're using that very healthy ecosystem to do some incredible innovations in conventional nuclear but also these small modular reactors.

I'd say that small modular reactors are going to enable us to decarbonize some of the hardest areas to decarbonize—heavy industry, oil and gas extraction and mining—and will help first nations. If we can use those niche technologies where we have that expertise to help other nations, we'll be able to not only help them decarbonize but benefit economically.

Therefore, support the industries that you know we can bring abroad as well as help here at home.

**The Chair:** Thank you very much, Mr. Gorman.

We'll move on to Mr. Aboultaif for five minutes, please.

**Mr. Ziad Aboultaif (Edmonton Manning, CPC):** Thank you, Madam Chair.

Good morning to all of our witnesses this morning.

ECT equals about 3.5% of the GDP. It's still shy; we do have an overall trade deficit. The United States is still by far the largest for us in that regard, equalling about 70%. We have other markets. As far as the Asian market, we have almost a complete trade deficit in this regard. Basically, we import more than we export. In this case, we have to start looking at where our strengths lie in Canada. There are three areas of industry represented here today: oil and gas, resources and nuclear.

To Ms. Savilow and Mr. Sinha in the oil and gas sector, where is this industry, the carbon-capture industry? We know that in Alberta we are a leader in that, as is Saskatchewan, I think. Where is the hope here? I believe that this industry is really going to help produce over and above the net zero on trade that we're looking for. If I could have a brief answer on that from both of you, that would be great.

• (1220)

**Mr. Apoorv Sinha:** I'll try to be succinct this time.

I totally agree with you. I think there's a strong opportunity for some of the experience that Albertans and people across the Prairies, frankly, including B.C., have built around LNG infrastructure and oil and gas, both heavy and light. A lot of that skill can be translated for use in carbon capture and storage. A lot of it can go toward decarbonizing industrial sources, such as coal-powered plants, which unfortunately are still going in many parts of Asia.

We've already seen that some of this is happening in terms of how that could be used as a way of creating a trade surplus. The key there is creating business models where the know-how can be taken over. Stantec, one of the largest engineering companies in the world, is based in Edmonton. By leveraging some of the partnerships and technologies that they have with start-ups like ours.... This is not necessarily just Stantec. It's also other Canadian engineering firms, such as Hatch. They can be great catalysts for bring-

ing these technologies out to such regions as China, Indonesia and other areas and essentially help these specific organizations there create the new plants—essentially, the modern versions of an ethylene cracker or a distillation column—and start creating royalty-based structures where the know-how can actually be moved from Canada over to these areas.

We think that will be the future. We cannot be taking Chinese carbon emissions and capturing them in Canada, but we can take the technology over there and create those long-term business relationships.

**Mr. Ziad Aboultaif:** Exactly. It's like two birds with one stone here. We have the technology. We are world leaders in that. We can, first of all, help ourselves to achieve better environmental standards, the 2050 goal, and on the other side, we can sell this technology overseas while still maintaining some control over it.

What should the government do on this? There is a plant here not far from Edmonton, and with \$55 million a year for the next 10 years they will be able to capture carbon equal to almost 320,000 vehicles being pulled off the road. I'm sure you're aware of these good stories. What should the government do? Should the government step up and help these industries?

**Mr. Apoorv Sinha:** I would have two recommendations. One would be that there has to be some sort of framework with specific countries in Asia. I think Indonesia, China and India will turn out to be probably the most important levers. There has to be some kind of arrangement where the adoption of carbon technology from Canada in those areas can be promoted somehow. If that's done through some sort of an incentive or by using the employment agreement that, by the adoption of Canadian technology more jobs in these countries can be produced, I think that could be a very interesting angle to promote localized decarbonization methods.

The second piece is something similar to the low-carbon fuel standards in California. I think something like that adopted in Canada could be interesting for direct air capture. One of the interesting things about how that is gathering momentum is that we can capture carbon emissions in Canada that were produced elsewhere in the world. If we can promote some kind of framework where direct air-capture mechanisms are being supported by LCFS or a similar mechanism in Canada, then it basically means that we can create Canadian jobs cleaning up Chinese pollution, as an example.

**The Chair:** Thank you, Mr. Sinha.

We'll go on to Mr. Sarai for five minutes, please.

• (1225)

**Mr. Randeep Sarai (Surrey Centre, Lib.):** Thank you, Madam Chair, and thank you to all the witnesses. I apologize. I didn't realize that I was listening to you with my camera off after the brief intermission. Please excuse that.

My first question is for Mr. Breton. In budget 2021, we proposed a 50% reduction on corporate taxes on clean-tech manufacturing. Do you think this will help? Maybe you can elaborate on how this will help.

Will it induce more investment or create jobs in the sector, and if so, how?

**Mr. Daniel Breton:** It will absolutely help. We are already seeing the results from EMC member companies.

Electric mobility is all about innovation, so to have people who are working in clean tech getting a 50% reduction in taxes will make a difference. We are seeing more and more companies being able to get funding from financial institutions.

The thing is, though, when we see more and more money coming from financial institutions or potential funders, a lot of that money comes from the U.S. There's still an issue here with regard to finding Canadian seed money to invest in these technologies. Many of these funders want the companies or the plants to go to the U.S. because the money comes from the U.S. To me, that's a great step in the right direction, but we have to find ways to leverage Canadian money into investing in clean technologies and clean transportation.

**Mr. Randeep Sarai:** Thank you.

We can't stop money from being invested in this sector but we can give inducements like this tax break. What are other ways to keep that investment, whether it's foreign or Canadian, and have that manufacturing right here in Canada?

**Mr. Daniel Breton:** We think the Canada Infrastructure Bank could play a role in funding some of those projects. We've seen that in Quebec with Investissement Québec. That's something we could be working on. We think Canadian banks could offer some incentives for investing in Canadian clean tech. We know that Canadian banks have invested a lot of money in oil and gas because it's a core Canadian business. We understand that. However, we think that the Canadian banks could get some privileged solutions from the Canadian government to invest in clean tech.

**Mr. Randeep Sarai:** Thank you.

My next question is for Mr. Pochtaruk from Heliene. I just want to know why solar panels, when you export them to the U.S., are tariffed. Are they tariffed because a significant number of their components are made in China or other places that are tariffed in the U.S., or is there something else factored into that? I've met some other Canadian solar manufacturers before and that was my understanding. I just want some clarity on that.

**Mr. Martin Pochtaruk:** Of course.

No, we do not use Chinese solar cells. Chinese solar cells will have an anti-dumping and countervailing duty—if we include that.

Canadian exports to the U.S. were never over 2% of total imports. The U.S. International Trade Commission, in its assessment during the section 201 tariff investigation back in 2017, actually concluded that Canadian exports were not producing injury. The International Trade Commission actually agreed with us that Canadian exports should not have been included.

However, then U.S. trade representative Robert Lighthizer and then president Trump actually did include Canada and everybody. It was a catch-all type of—

**Mr. Randeep Sarai:** Is that still pending?

**Mr. Martin Pochtaruk:** It is still going. Right now we are paying 18%. That is still happening. That has not been resolved. We have an opportunity to resolve it now with the Biden administration.

**Mr. Randeep Sarai:** Thank you.

My next question is for Mr. Sinha.

You have what seems like an amazing technology to reduce the carbon footprint. How can the government help you export this more broadly? Cement is used globally. It would be very good for the world and for Canada if we could reduce from double digits the greenhouse gas emissions from a major global contributor.

• (1230)

**The Chair:** Could we get a brief answer, please?

**Mr. Apoorv Sinha:** I think the main framework is a four- to five-year game plan on engaging with industrial partners in other countries.

I'd be happy to talk about that more off-line, but currently there's no precedent for this.

**Mr. Randeep Sarai:** If you could submit something, that would be great.

Thank you.

**The Chair:** Terrific. If you could submit it to the clerk, Mr. Sinha, we'd appreciate it.

We will move on to Mr. Lewis for five minutes, please.

**Mr. Chris Lewis (Essex, CPC):** Thank you very much, Madam Chair.

Thank you to all the witnesses. There was some really good testimony this morning.

My first question is to Mr. Breton, through you, Madam Chair.

I'm fortunate enough to sit on our auto caucus, as well as to be part of the CAAM committee, which is a special committee on economic relations recovery between Canada and the U.S. I was listening very intensely when you were talking about all the job creation and those types of things. I also recently had a conversation with the Canadian global auto manufacturers. I understand there to be about 121 new EV models coming to the market by 2030.

My riding of Essex is down by Windsor, so it's next to the busiest international border crossing in North America. I know that our manufacturers, our tier twos, are actually hemorrhaging jobs to the United States because they can't get people—people being commerce across the border. They can't get clients in and get them back over. If they do, they have to quarantine for 14 days or pay very hefty fines.

These manufacturers, I'm assuming, are going to be building all of the parts for your clean technology to go into new vehicles, but still under the major players in the world when it comes to auto. Have you run into that issue yet? Are you concerned about that? Are there any thoughts?

**Mr. Daniel Breton:** Just to make sure I understand, are you talking about the fact that because of COVID there are some problems going from the U.S. to Canada and vice versa?

**Mr. Chris Lewis:** Exactly.

**Mr. Daniel Breton:** We have seen a bit of that. Hopefully that's just something that will be resolved over the next few months. We're all crossing our fingers, but things are starting to look better. I'm not sure I have seen or heard much of that so far, honestly. I've talked to people who build electric buses and cars, and they go across the border. The quarantine is an issue, but I don't think it's such a big issue.

Between us, to be totally honest, the real issue is going to be finding qualified people to get those jobs. For the transition, we are looking for a lot of new and qualified people for mining, research and development, engineering, chemistry and assembly as well. This is already an issue. We have companies in the middle of a pandemic that can't find enough qualified people. Just imagine what it will be like after the pandemic. That's why we have to invest seriously in training and retraining workers.

**Mr. Chris Lewis:** Thank you, Madam Chair.

Through you, again, I'll go straight back to Mr. Breton, please.

When it comes to products moving back and forth across the border, I believe for one automobile, as an example, a part can go back and forth across the border up to seven times. I'm kind of leaning on the buy America, buy American right now. In essence, many of our Canadian manufacturers are actually buying the raw products from the United States to assemble and to ship back to the United States in order to fill the major voids that they have on their side.

In the business world, it's only a good deal if it's good for both sides. I believe there's a bit of a bias here in that we have the opportunity to buy their goods to turn around and sell back to them. What can we do as a government—as a committee, quite frankly—to bridge that gap and to make it fairer for Canadian businesses?

**Mr. Daniel Breton:** I think that, honestly, because of the fact that we have a lot of knowledge in Canada regarding electric mobility, whether it's for light or heavy-duty.... We have research centres. We also have the minerals and materials that the Americans need. A lot of the stuff that goes into clean technology and clean cars is in the mining areas in Canada.

It is not a coincidence that President Biden decided to talk about a U.S.-Canada agreement on electric mobility, EVs and batteries, because we have these materials. For us, it's a negotiation point because we can use that to say let's work together in building a North American EV strategy that will make us stronger. Since Europe has started their strategy, electric vehicle sales have gone way up. They passed ahead of China last year while we were in the middle of a pandemic.

For geopolitical implications as well as economic implications, we have to work together with the U.S. We have what people are looking for. Right now most mining and refining of these critical minerals and metals are done in Asia—especially in China. We have to ensure our economic stability and have some previsibility from an economic standpoint for the EV world.

• (1235)

**The Chair:** Thank you, Mr. Breton.

We go on to Mr. Arya for five minutes, please.

**Mr. Chandra Arya (Nepean, Lib.):** Thank you, Madam Chair.

My question will be for Mr. Daniel Breton.

Mr. Breton, what you have talked about, the national security issue, is so important. Unfortunately, many Canadians are still not aware of what is happening in the energy world.

When you talk about batteries, I'm sure you know and many others may know that it is not just limited to electric vehicles. You are also talking about batteries for energy storage, which greatly improves the viability of a lot of the renewable energy generation that you are talking about.

A trillion-dollar transportation segment is moving fast, but unfortunately, many Canadians are still not aware of what is happening there. I'm so glad that you are here talking about these things.

Canada and the U.S. recently agreed to strengthen the Canada-U.S. joint action plan on critical minerals collaboration, which you also mentioned. We have some of the rare minerals and other critical minerals for battery generation. This joint action plan is to target a net-zero industrial transformation, batteries for zero-emission vehicles and renewable energy storage.

We have agreed with the U.S., and many people, many Canadians, are not aware that in the recent budget we proposed a critical battery mineral centre of excellence at Natural Resources Canada. This would coordinate federal policies and programs on critical minerals and work with provinces, territories and other partners. That is also very important. In the recent budget, again, many Canadians are not aware that we have invested in federal research and development to advance critical battery mineral processing and refining expertise.

The U.S. has also only recently woken up to the fact that battery manufacturing is critical, whereas in the world, I think, as of today, some people think that the manufacturing capacity is still in China, with some technologies with some Japanese manufacturers and Korean manufacturers. If I'm not wrong, in the U.S. as of today, there are about five major battery manufacturing facilities with investments of over \$2 billion each, so it is very critical and I'm glad that you're talking about it.

Can you let us know or can you re-emphasize what we need to do? I personally have been calling for a Canada-wide task force to make sure that we have a comprehensive strategy to develop minerals, to develop technologies and to develop a manufacturing industry in batteries.

Can you re-emphasize what it is we need to look at in the short, medium and long term on the issue of batteries development, which, as you rightly have pointed out several times, is a national security issue?

**Mr. Daniel Breton:** Thank you for talking about that. To me, it's very important. I have said it many times over the past years.

Regarding critical minerals and metals, I remember the first people I heard talk about that came from the Pentagon, from the U.S. government. They said that, for national security reasons, we have to look into that, because it's not just for electric vehicles and renewables. It's also for the military when we're talking about strategic minerals and metals. That's why it's so important for geopolitical reasons.

We at EMC, obviously, are not in the arms business, but when we talk about developing a Canadian electric mobility strategy, it's to make sure that we understand the whole ecosystem of electric mobility that ranges from light-duty vehicles to heavy-duty vehicles, from mining, to assembly, to research and development, and we don't have that now.

I was in charge of the first electric mobility strategy in Canada when I was in the Government of Quebec back almost 10 years ago. We need a comprehensive plan for Canada, and that's why I'm really proud to say that, in collaboration with other stakeholders in Canada, we will announce in June a Canadian ZEV supply chain alliance to work together to come up with a plan for the Canadian industry to talk to the Canadian government.

• (1240)

**Mr. Chandra Arya:** My time is limited.

**The Chair:** I'm sorry, Mr. Arya, but your time is up.

Mr. Breton, thank you for your very valuable information.

We'll go to Mr. Savard-Tremblay, for two and a half minutes.

[*Translation*]

**Mr. Simon-Pierre Savard-Tremblay:** Thank you, Madam Chair.

Mr. Breton, you were saying earlier that a policy is not just about programs and money.

What does a coherent policy look like in an area such as the electrification of transportation?

**Mr. Daniel Breton:** Once we have a policy, we need a "strategy" or an "action plan", call it what you will. We have to decide on the steps we need to take, to choose projects to tackle in a certain time-frame, and to allocate money to those projects. That is how we proceeded in the Government of Quebec. Governments in Europe are in the process of doing the same. China is far ahead of us. The reality is that, in Canada, we currently have about 100 electric buses on the roads, but in China, they have more than half a million.

We have talked a lot about climate change and the carbon footprint. That is perfectly logical, but we must never forget that air pollution is also an issue. Air pollution is the biggest killer on the planet, and it is caused by what comes out of chimneys on factories and exhaust pipes on vehicles.

In a study published in Canada only a few months ago, in February 2021, I think, the economic cost of air pollution was estimated at \$120 billion annually. The transition to renewable energy and clean transportation could help to save thousands of lives. It is estimated that air pollution causes 15,300 deaths each year, eight times more than the deaths caused by traffic accidents.

Moreover, by manufacturing green products for electric transportation, we will be improving people's quality of life and saving billions of dollars. If we export them, we will be saving lives all around the world.

Health is therefore an extremely important issue. We sometimes tend to forget that.

**Mr. Simon-Pierre Savard-Tremblay:** Do I still have a little time, Madam Chair?

[*English*]

**The Chair:** You have 40 seconds.

[*Translation*]

**Mr. Simon-Pierre Savard-Tremblay:** Let us end by going back to your last comment.

I am sure that you have heard the story that has been fashionable for a few years, that electric vehicles are as polluting, if not more polluting, than gas-powered vehicles.

What do you think of that?

**Mr. Daniel Breton:** I wrote a book on electric vehicles. It was published two weeks ago, on the occasion of Earth Day. It is my sixth book.

The reality is that electric vehicles emit fewer greenhouse gases and pollute less, wherever they are made and however the electricity needed to make them is produced. You can be in Quebec, in Manitoba, in Alberta or in British Columbia; electric vehicles are always cleaner than equivalent gas-powered vehicles, and they are getting even cleaner.

**Mr. Simon-Pierre Savard-Tremblay:** Thank you.

[*English*]

**The Chair:** We'll move on to Mr. Blaikie, for two and a half minutes.

[*Translation*]

**Mr. Daniel Blaikie:** Thank you, Madam Chair.

Mr. Breton, could you give us some more details about that?

Why are those arguments, that electric vehicles pollute more than gas-powered vehicles, not valid?

**Mr. Daniel Breton:** Actually, electric vehicles pollute less and less because the ways in which electricity is produced are greener and greener. To give you an idea, in 2009, in about half the states of the USA, 48% of Americans believed that an electric vehicle polluted less than a gas-powered vehicle.

Last year, in 42 of the 50 American states, 94% believed that an electric vehicle polluted less than an equivalent gas-powered vehicle. In the eight other states, they thought that hybrid vehicles polluted least. So the Americans believe that no gas-powered vehicle pollutes less than vehicle that is partially or wholly electric.

According to a study that I worked on and on which I am collaborating with officials from the National Research Council Canada, vehicles that are partially or wholly electric always emit fewer greenhouse gases than equivalent gas-powered vehicles. This applies in Alberta, where 92% of the electricity is produced by fossil fuel, or in Manitoba, Quebec or Ontario.

We were saying earlier that the price of solar panels has dropped a lot. The price of batteries for electric vehicle has also dropped, by about 85% since 2010. We forecast that it will continue to do so, by about 50% by 2024-2025. The price of electric vehicles should therefore be equal to gas-powered vehicles by 2024-2025. In addition,

the air pollution and greenhouse gas emissions from electric vehicles are dropping year after year. Between 2013 and 2019, for batteries, the greenhouse gas emissions per kilowatt hour dropped by 65%. By 2024-2025, we anticipate a further decrease of 50%. In addition, as battery components are almost 95% recyclable, whereas gasoline is no longer recyclable once it is burned, electric vehicles will be 10 times less polluting than gas-powered vehicles.

Electric vehicles are therefore increasingly clean and efficient. In the same period of time, gas-powered vehicles are causing more and more pollution problems, because the technologies have not kept pace.

• (1245)

**Mr. Daniel Blaikie:** Thank you, Mr. Breton.

Thank you, Madam Chair.

[*English*]

**The Chair:** I'm sorry, Mr. Blaikie. Your time is up.

We move on to Mr. Lobb, for five minutes, please.

**Mr. Ben Lobb:** Thank you, Madam Chair.

I have a question for Mr. Breton.

I know there's been talk about what's cleaner and what isn't cleaner and all that. One question I have for you is this. The first generation of electric vehicles en masse will be coming to the end of their lives in the next five to seven years, likely. There are going to be thousands or tens of thousands, I suppose, of batteries.

First, what's the plan for those? Second, does Canada have an opportunity to be a world leader in the breakdown and recycling of those batteries? It's a two-pronged question.

**Mr. Daniel Breton:** The plan is for companies to work with manufacturers to recycle batteries. There are two very important companies. One, in Ontario, is called Li-Cycle, and the other is Lithion, in Quebec. They work on recycling batteries for electric vehicles.

They can recycle up to 95% of the components of the batteries. This is a real plus, because once you get back those materials, you can build batteries for a cheaper price and you don't have to go back to mine more materials.

As I said before, what's very different when you compare an electric vehicle with a gas vehicle is that once the gas is burnt, you can't recycle it. There's a big difference there. There's a big plus.

**Mr. Ben Lobb:** Thank you.

My next question is for Heliene.

We've talked about the issues with tariffs into the United States, which are unfortunate. When you're looking at the rest of the world—and maybe I missed this in your discussions—where have you identified areas that you have a natural ability to sell to or where you think you're going to increase your sales as years move forward?

**Mr. Martin Pochtaruk:** Thank you.

We have to steer away from where the Chinese are the leaders. That means staying within North America and going into Mexico, Latin America and the Caribbean. The Caribbean is an area in which Canadian engineering companies are very strong. We have to rely on that.

Once we get out of the immediate geographic area, I would say it's sub-Saharan Africa—all of the African continent, really.

**Mr. Ben Lobb:** I apologize if I missed this, but are you currently selling into those markets at this time, or is this something you've identified?

**Mr. Martin Pochtaruk:** We have been selling into the Caribbean for 10 years. We have been able to sell from western Europe all the way to Japan in the last 10 years. Right now we have concentrated in the U.S. because it is an easy market for a private, small company; it's more affordable.

Thinking outside the box, I think Africa, beyond Latin America and the Caribbean, should be our target. We have not been able to export there yet.

• (1250)

**Mr. Ben Lobb:** For the Carbon Upcycling Technologies company, the opportunity on the cement side must be phenomenal. I know you don't want to tell us how many dollars a year in sales you're doing on that product, but is this something you're selling around the world, or are you, because of the cost of shipping, western Canada-based. Is this something you can sell all over North America?

**Mr. Apoorv Sinha:** The business model will be licensing the technology, because concrete is a very localized product—

**The Chair:** Mr. Sinha, could you adjust your microphone?

**Mr. Apoorv Sinha:** I'm sorry.

It is a very localized product. Cement will usually move thousands of miles, but concrete in particular only moves in a 100-mile to 200-mile radius.

Our business model is to license the technology so that these companies can adopt this new way of making these lower-carbon materials and use them locally. Essentially we're looking at a model that would be more like that of an engineering company that's providing a novel technology or service.

**Mr. Ben Lobb:** What areas are you located in currently? Is it just in Alberta, or do you have other locations?

**Mr. Apoorv Sinha:** We're currently actively selling into the western Canadian market, primarily in Calgary and the southern Alberta market. We are, however, at a very late stage in some licensing agreements with a couple of groups in the U.S., one in Europe and one in Asia.

**The Chair:** Thank you very much, Mr. Sinha.

We will move on to Mr. Dhaliwal, please, for five minutes.

**Mr. Sukh Dhaliwal (Surrey—Newton, Lib.):** Madam Chair, thank you.

Thank you to all the presenters, and particularly to the companies that are playing a key role in making Canada a world leader when it comes to the environment and clean technologies.

My question, Madam Chair, will go to Heliene and to Carbon Upcycling Technologies.

We know that clean tech is a growing market worldwide, as mentioned earlier, and that is the reason our government has put an investment of \$21 million over the next five years into this budget, and \$4.3 million is going to the trade commissioner service to promote Canadian clean tech abroad.

I would like to ask how good your work experience is with the TCS to access new market shares.

**Mr. Martin Pochtaruk:** To start, it has been excellent. If we go back to 2013, we have used the service of the Foreign Affairs' local group in Japan and that allowed us to export to Japan, then. There is an installation in the southern island of Fukuoka with Canadian solar modules.

We have done work in Argentina, in Brazil, in Mexico and in Ghana, so I would say it is very simple, very easy, to work with TCS, and their help is invaluable. They are really good.

**Mr. Sukh Dhaliwal:** Thank you.

I'll go to Carbon Upcycling Technologies, please.

**Mr. Apoorv Sinha:** The trade commissioner service has been quite effective in helping us explore partnerships in different areas. I would say candidly that it has been a hit and miss in many areas. In some cases we found the trade commissioner service—for example, in Paris, France—to be extremely well engaged. I think that was a function also of how the local market works. It's very centralized, and there are few and bigger companies there versus the more fragmented market, for example, in Denver or in some other areas in the U.S.

Our experience has been great in some cases and not so great in others, but much of it boils down to capacity. I think some specific insights for the commissioners, some specific KPIs that help them look at what start-up companies need to succeed and how they can help achieve that would be very helpful across the board. I think sometimes that's not as obvious, because they're dealing with much bigger companies.

• (1255)

**Mr. Sukh Dhaliwal:** Did the COVID-19 situation have an effect, or were you able to communicate virtually?

**Mr. Apoorv Sinha:** That is an excellent question.

I would say that, in one sense, it needed a completely different rethinking of the process, because we actually saw that before, when you had to schedule meetings with groups in Europe or even in the States, they would schedule them two or three months in advance because they expected you to come and do it in person. Since COVID, we actually saw a lot of direct communication with those customers or potential buyers, so it ended up becoming a lot more streamlined. To be honest, our engagement with the trade commissioner office since COVID has not been very active. We were able to go directly to the customers in most instances.

**Mr. Sukh Dhaliwal:** Thank you.

Madam Chair, nuclear power has been of interest to me, particularly having been born and raised in a country where there is pollution, and nuclear power can play a key role. I grew up in a town that was powered by water energy.

I would like to ask the industry how nuclear power can play a green recovery role, in particular not limited to Canada or North America, but across the globe?

**The Chair:** Could I ask for a brief answer if possible, Mr. Gorman?

**Mr. John Gorman:** Thank you for the question, Mr. Dhaliwal.

When I started in the renewables business 20 years ago, we had 36% non-emitting electricity on the world's grids. Today, 20 years later, after a lot of investment and incredible adoption of renewables, we're still at 36% non-emitting electricity. We haven't moved the dial in 20 years. That's because we continue to partner fossil fuels with these great renewable resources like solar and wind, which are so important.

We need to put nuclear in there to partner with wind and solar, and small modular reactors are ideally suited to help do that. It's very important that we partner nuclear with renewables, going forward.

**The Chair:** Thank you, Mr. Gorman.

Mrs. Gray, you're on for the remaining three minutes.

**Mrs. Tracy Gray:** Thank you, Madam Chair.

I'd like to open it up to any of the witnesses who'd like to answer this. I know that many of you have spoken about different barriers that you have and some of your issues.

Do you feel in our present trade deals that we have something to offer to help your organization export, or is there something that

can be done in future trade negotiations that is missing right now to help with that?

**Mr. Apoorv Sinha:** Yes, one suggestion I would have is to tie some of the free trade elements of an agreement to certain commitments with climate targets. I think there is definitely a lot that can be done by committing that certain clauses or certain elements of that agreement only come into effect if specific measures are taken in sectors, not just in construction but with overall decarbonization goals.

**Mrs. Tracy Gray:** Thank you, Mr. Sinha.

Mr. Gorman.

**Mr. John Gorman:** Thank you for the question. I'd offer this observation. We recently observed something remarkable. This has to do with how our federal government financing strategizes over who it's going to support. Recently the Romania opportunity opened up to build two new nuclear plants and refurbish an existing one. Romania is insisting on CANDU technology. In the United States, their funding mechanisms, like the EXIM Bank, reached out to industry, identified this as a business opportunity and a strategic opportunity, engaged industry to go after the opportunity and gave them \$8 billion.

As you know, the way our financing system works is very reactive here in Canada, as I'm observing. Industry has to go to government to apply for money to go after these opportunities. It's not a joint effort of both industry and government looking at them together. We almost lost out on working in Romania with our own technology because of this reactive stance of the government on financing, so I hope we can get more proactive on that.

• (1300)

**Mrs. Tracy Gray:** Thank you.

Mr. Breton.

**Mr. Daniel Breton:** As I mentioned earlier, we have a document that we put together called "Public Procurement of Electric Vehicles, Recharging Infrastructures and Related Products/Services in Canada: An Analysis under the Rules of International Trade". I think we'll find that very informative in that it could help electric mobility companies working in Canada and the U.S. to get more projects, instead of just the lowest bidder.

**Mrs. Tracy Gray:** Thank you.

Mr. Pochtaruk.

**The Chair:** I'm sorry. I'm afraid your time is up.

Mr. Pochtaruk, would you like to give a brief answer to that question?

**Mr. Martin Pochtaruk:** Yes, certainly. The role of Export Development Canada on this is key. Export Development Canada can and in many cases does provide two types of facilities. One is long-term debt, and the other one, which is more simple, is what they call a warehousing facility, which works like a line of credit. We are using that.

Thank you.

**The Chair:** Thank you very much.

Thank you to all of the witnesses for opening up this particular study, which will be very informative for all of us.

Thank you to everyone.

I will move adjournment of the meeting, but before that, I had the clerk send out an email with a bit of an update on our upcoming six or eight weeks of committee, including Mr. Savard-Tremblay's C-216.

Thank you all very much. Have a wonderful day.

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