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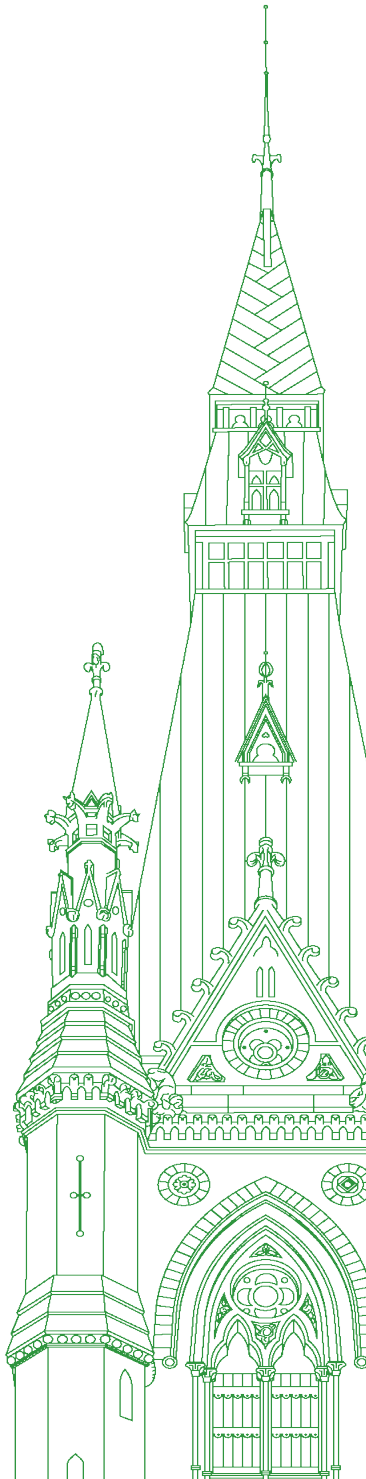

Chair: Mrs. Sherry Romanado

Standing Committee on Industry, Science and Technology

Tuesday, May 11, 2021

● (1105)

[*English*]

The Chair (Mrs. Sherry Romanado (Longueuil—Charles-LeMoyne, Lib.)): Good morning everyone. I now call this meeting to order.

Welcome to meeting 38 of the House of Commons Standing Committee on Industry, Science and Technology.

Today's meeting is taking place in a hybrid format, pursuant to the House order of January 25, 2021. The proceedings will be made available via the House of Commons website, and the webcast will always show the person speaking, rather than the entirety of the committee.

To ensure an orderly meeting, I would like to outline a few rules to follow.

Members and witnesses may speak in the official language of their choice. Interpretation services are available for this meeting. You have the choice, at the bottom of your screen, of floor, English or French. I'll remind you that all comments by members and witnesses should be addressed through the chair. Before speaking, please wait until I recognize you by name. When you are not speaking, your microphone should be on mute.

As is my normal practice, I will hold up a yellow card when you have 30 seconds left in your intervention. I will hold up a red card when your time for questions has expired. Please keep your screen in gallery view, so that you can see the cards when I hold them up.

Pursuant to Standing Order 108(2) and the motion adopted by the committee on November 5, 2020, the House of Commons Standing Committee on Industry, Science and Technology is meeting today to continue its study on economic recovery from COVID-19.

I would like to now welcome our witnesses.

Today we have Mr. Robert Lyman, principal, ENTRANS Policy Research Group. We have Ms. Josipa Gordana Petrunic, president and chief executive officer, Canadian Urban Transit Research and Innovation Consortium. We have, from the Coalition of Concerned Manufacturers and Businesses of Canada, Veso Sobot, board member. From Mothers Step In, we have Laure Waridel, co-instigator.

[*Translation*]

From the same organization, we are also hearing from Émilie Robert, a biology teacher from Rouyn-Noranda.

We are also welcoming Jean-François Samray, president and chief executive officer of the Quebec Forest Industry Council, as well as Michel Vincent, director of the Economics Markets and International Trade Branch at the Quebec Forest Industry Council.

[*English*]

From Tavos Industries, Mr. Alexander Kung, director of sales and business development.

Each witness group will present for up to five minutes, followed by rounds of questions. We will start with Mr. Lyman.

You have the floor for five minutes.

Mr. Robert Lyman (Principal, ENTRANS Policy Research Group, As an Individual): Madam Chair, honourable members, thank you very much for inviting me to appear before the committee to offer evidence in support of the committee's study.

After briefly describing my background, I will seek to aid the committee's study by addressing three subjects: the definition of the clean energy sector, the direct and indirect costs of the green initiatives and related measures, and the experience to date concerning the income and employment benefits of the environmental and clean technology products sector.

My professional experience has been almost entirely in analyzing and advising on the public policy issues related to energy, environment and transportation. I spent 37 years in the federal public service, serving under 22 different Liberal and Conservative ministers. I spent the first 10 years of my career in the foreign service with postings to Caracas, Venezuela, and Washington, D.C. After that, I served in five other departments, mostly in economic policy areas.

I retired as director general, environmental affairs, at Transport Canada in 2006, and subsequently, spent 10 years as a consultant to federal and provincial government departments on energy, environment and transportation issues.

I am sure the committee is aware that the subject it has agreed to study is very broad in scope. It's important to define what these practices, or more precisely, activities and investments involve.

Statistics Canada has offered one definition in the statistical reports it has issued since 2007 of the environmental and clean technology products sector. The sector includes companies that are engaged in producing a wide range of products and services. The products include electricity produced from renewable energy sources and nuclear power generation; wind, solar and hydro generation products; equipment for spill response and remediation; biofuels; and others. The services include waste management and remediation services; environmental assessment services; energy efficiency consulting services; engineering and construction services; and others.

The sector, thus, includes almost everything that reduces the environmental effects of economic activity.

Much of the clean technology goods subsector relates to the production of renewable energy equipment and electricity generated by wind, solar and biomass energy. It's important to understand the costs of these goods. I cannot possibly do justice to that subject in a five-minute statement. I will say that the capital and operating costs of wind and solar energy generation represent only a small share of the cost that they impose on the electricity generation and transmission system.

With respect to the direct cost to consumers, the committee should consider Ontario's experience following the passage of the Green Energy Act of 2009. That legislation authorized Ontario's independent electricity systems operator to offer feed-in tariffs at above market rates for renewable energy generation. Further, the province guaranteed those rates for the life of the contracts, generally 20 years, and required that the renewables production be granted “first to the grid” rights over less expensive sources of generation.

The auditor general of Ontario, in her 2015 report, found that from 2004 to 2014, the portion of residential and small commercial customers' bills covering electricity generation costs increased by 80% from 5¢ per kilowatt hour to 9¢ per kilowatt hour. The overall cost of electricity to consumers increased by 56%, from $12.2 billion in 2004 to $18.9 billion in 2014. Between 2010 and 2016, monthly electricity bills, including taxes in major Canadian cities, increased by an average of $37.60 per kilowatt hour. During the same period, electricity bills in Toronto rose more than twice as much.

● (1110)

The annual average household cost of electricity in Ontario rose by 120% from 2009 to 2016. According to Scott Luft, an expert in Ontario electricity markets, the cost of Green Energy Act contracting is now over $4 billion a year, or $80 billion—

The Chair: Mr. Lyman, that is the five minutes. Could you please conclude?

Mr. Robert Lyman: Is that five minutes already? Okay.

I would recommend that the committee lend its support to the establishment of a federal government energy framework that stimulates profitable investment in capital formation, reduces emissions intensity, supports research and development, and provides a planning framework long enough for new technologies to develop the competitive advantages that will allow them to succeed in the marketplace.

● (1115)

The Chair: Thank you very much.

We'll now to go Ms. Petrunic.

You have the floor for five minutes.

Dr. Josipa Gordana Petrunic (President and Chief Executive Officer, Canadian Urban Transit Research and Innovation Consortium): Thank you very much. I appreciate the opportunity to be here today.

I'm Josipa Petrunic. I'm the president and CEO of the Canadian Urban Transit Research and Innovation Consortium. It's a long name, but we go by CUTRIC.

CUTRIC is a special kind of non-profit organization. I'm going to start off today by giving you a sense of some of the major projects we've launched that have had an impact on the economy and that give us a pathway forward for the green recovery that, as Canadians, we all want.

CUTRIC is the only organization in North America today that represents members from the transit sector, the manufacturing sector, the electrical and natural gas utility sector, the academic sector, and the software and technology sector. When you put that all together, it means that as a non-profit we basically do technology projects, so we operate a lot like a technology start-up in terms of our innovative and creative thinking. That's exactly what's needed in order to transform our current transit and transportation fleet into a low-carbon smart mobility economy for Canadians.

As we're focused on transforming the transportation and energy matrix that defines how Canadians move, the transit and mobility options we have available to us today and the pollution and operational costs associated with those options, CUTRIC is really aligned with the goal of establishing Canada as a leader in low-carbon smart mobility technology, innovation, design and deployment.

Based on that unique structure, we have been able to design otherwise impossible projects and launch them in Canada today, which is proof of the potential of the green economy that this country can build post-pandemic. We've already been able to help make the country a global leader in the design and deployment of several key low-carbon smart mobility tech projects.

As an example, several years ago, when it wasn't popular to do so, we were able to pull together leading transit agencies, manufacturers and utilities to launch the pan-Canadian electric bus demonstration and integration project. We launched that with TransLink in Vancouver, with Brampton Transit in York region, north of Toronto, and with competitive manufacturers Nova Bus and New Flyer, both electric bus manufacturers in Canada, and Siemens and ABB, both high-powered charging system manufacturers with significant footprints in Canada.

These kinds of projects also integrate the utilities. In this particular project, we integrated B.C. Hydro and Newmarket-Tay Power Distribution as utilities in a global first, to demonstrate for the first time in the world that you can create interoperable, standardized electric bus technology in Canada, deploy it in Canada and attract foreign direct investment in this space.

We are leading similar projects in hydrogen fuel cell bus integration in this country right now, with Mississauga and a data partnership intended with Winnipeg Transit. We're leading an effort to get small, autonomous low-speed shuttles out the door in Markham and in Stratford, in order to make sure that there's transit not only in our urban communities but in our suburban and rural communities as well.

From coast to coast to coast, not only our membership and our staff but also our board of directors recognize that the large-scale procurement and deployment of electrified transit systems using battery power, hydrogen fuel cell technologies and renewable natural gas technologies, along with autonomous and connected shuttles, will create hundreds of thousands of jobs in this country, which they're already doing. We know that by integrating data analytics and cybersecurity into these systems, we will be fostering the growth of clusters of high-paid jobs in a competency that is needed worldwide.

In sum, low-carbon smart mobility is a critical area for Canadians. The use of shared smart mobility in mass transit systems has certainly dipped during the pandemic, but don't be fooled. It is critical that we recognize that transit is coming back. There is no doubt our cities will come roaring back. We must recognize that, even pre-pandemic, Vancouver, Calgary, Edmonton, Winnipeg, Toronto, Brampton, Quebec City and Montreal were already struggling to move enough people over enough distance to advance our economy efficiently, from both an economic and a human quality of life perspective.

The pandemic has actually given transit agencies the opportunity to breathe, the room to prepare for complex technologies like zero-emissions, connected, autonomous and data-driven technologies. Cities are not going back. Transit is not going back.

The expectation is that the federal government will be a partner in the effort to build a better life for Canadians. Without good mobility systems, we would be otherwise failing our people, and this is both for urban and rural communities. The government has already taken promising steps with transit investments in the clean sector economy. This has been critical: $15 billion in permanent transit funding and $2.75 billion in dedicated ZEV technology for zero-emissions buses. It is complex, but over time it does save money.

In conclusion, I'd like to note that investing in the greening of our transit systems will create jobs in the economy. It is already doing so. I am proof of it. My team is proof of it, and the hundreds of companies and organizations we represent across this country are proof of it.

● (1120)

Thank you for your time. I look forward to being able to answer your questions.

The Chair: Thank you very much.

We will now go to Mr. Sobot.

The floor is yours for five minutes.

Mr. Veso Sobot (Board Member, Coalition of Concerned Manufacturers and Businesses of Canada): Thank you very much, Madam Chair. I really appreciate it.

My name is Veso Sobot and I'm an engineer with IPEX, headquartered in Oakville, but I'm a board member of the Coalition of Concerned Manufacturers and Businesses. I like to call us the coalition of job creators, and I'll be speaking on behalf of the coalition in my testimony today.

We will share three suggestions for how to unleash Canadian entrepreneurship and help make this decade Canada's decade. Suggestion one concerns trade with the U.S. USMCA or CUSMA, as we call it, has been very helpful in many respects, but contrary to common belief, it does not protect us against buy America. Canadian companies continue to be blocked on U.S. federally funded infrastructure projects while American firms have unfettered access to Canada.

Ironically, the company I work for buys American all day long. Our products are made from American resin. Natural gas that's sent from Canada makes its way to the U.S. and is cracked into ethylene and combined with chlorine and salt to make pellets that are used in long-life building construction products like siding, windows, soffits, decking, fencing and pipe, and of course in the medical sector in a very big way and in the auto sector in a very big way.

Last year, 18% of U.S. vinyl resin production came to Canada. China was America's second-largest customer at 10.1%. Mexico was third at 10%. This year, we expect Canada to be the biggest customer for America, bigger than China and Mexico combined. We have leverage. If you recall, Prime Minister Harper successfully secured an exemption to buy America with President Obama back in February of 2010 using leverage. We think it's time for Prime Minister Trudeau to do the same with President Biden, especially now when there's a shortage of construction products in the United States and the two are ideologically congruent in many respects.

It's in America's best interests to use Canadian products rather than Chinese. Canada shares best practices and has some of the best environmental credentials in the world. Focusing on green infrastructure and Canadian solutions to U.S. problems is the key to an exemption to buy America. An example of that beneficial Canada-U.S. relationship can be found in Burton, Michigan, just outside of Flint. After careful due diligence, Burton removed its water supply lines and replaced them with 19 miles of Canadian innovation biaxially oriented lead-free vinyl pipe, which conserves resources by using significantly less material, reducing its environmental footprint and still providing high strength.

The pipe was made by IPEX in Saint-Laurent, Quebec, just outside of Montreal, using Unifor labour and installed by LiUNA members in Burton. Burton now has cleaner water, has minimized its environmental footprint and has saved $2.1 million U.S. for its taxpayers. Indeed, a 2018 American study showed that Canadian break rates for vinyl pipe were best in class, implying that there's a great benefit to Canadian municipalities' using innovative Canadian technology for infrastructure renewal.

With regard to suggestion number two, many of you have seen the poll this week that says 74% of Canadians believe government debt is too high. We believe one way to lower that debt is to unleash entrepreneurs, especially those who export. Consider incentivizing exporters by exempting them from, let's say, the carbon tax, and watch the debt problem be reduced over time.

With regard to suggestion number three, another important thing that can be done to help is to stop the attack on plastics. Environment and Climate Change Canada is poised to declare plastics toxic any moment now, when in fact that's a classic overreach. They're not toxic. Doing that presents the danger of killing Canadian jobs in every sector. It's creating a chill that is already driving investment out of Canada, when all that's needed is an effective, coordinated provincial litter strategy.

In conclusion, we urge the committee to help, first, to secure an exemption to buy America, second, to incentivize Canadian job creators to export, and third, to stop self-inflicted wounds like the ones from declaring plastic as toxic, which it's not.

Thank you very much. I look forward to your questions.

● (1125)

The Chair: Thank you very much.

With that, we will now go to Mothers Step In.

[*Translation*]

You have the floor for five minutes.

Dr. Laure Waridel (Co-Instigator, Mothers Step In): Thank you very much.

My name is Laure Waridel, and I am an eco-sociologist and an associate professor at UQAM's institute of environmental science. I am speaking as a mother stepping in for my children, Colin and Alphée and, since recently, for my little daughter Théodora, who will be only 29 in 2050, a turning point when we will see many changes in ecosystems and the climate if nothing is done right away.

That is why my colleague and I are appealing to you this morning. I will now let her introduce herself.

Ms. Émilie Robert (Biology Teacher, Rouyn-Noranda, Mothers Step In): Good morning.

My name is Émilie Robert, and I teach biology at the Abitibi-Témiscamingue CEGEP. I am a mother stepping in for Jeanne and Hugo.

Dr. Laure Waridel: So we are speaking today as mothers who are part of Mothers Step In, a movement of mothers, grandmothers and great grandmothers from all walks of life, joining forces to protect our children's future. There are 5,600 of us across Quebec and beyond. Twenty-five groups are active locally, which requires political courage at the municipal, federal and provincial levels. In Canada, we work with For Our Kids.

We feel that, to protect our children's future, we must protect the environment and social justice. That is why we have been calling for months for a fair and green recovery and are providing our elected members with the document “101 ideas for the recovery”, part of the Pact for the Transition, to which we have provided a link at the end of our brief.

To avoid crises like the one caused by COVID-19, we must urgently transform our economy. Much more is needed than the greening of technologies. We must address overconsumption and waste. We have known for a long time that the planet's resources are limited, as is the capacity of ecosystems to absorb our waste, including plastics, of course. An increase in unlimited material and energy consumption in a world with limited resources is mathematically impossible, and it is up to our governments to implement the regulations necessary to remaining within planetary boundaries.

You, who are our elected representatives or work with them, must immediately stop supporting anything that contributes to a gradual destruction of life on Earth. On the contrary, you must encourage whatever protects the Earth. Here are a few concrete ways that would help put words into action for a fair and green recovery.

First, real climate legislation must be passed, and subsidies for fossil fuels must end.

As elected members of the House of Commons, you have the power to act so that Canada would have a real piece of climate legislation. It is imperative to improve Bill C–12 on net-zero emissions, so that measures would be implemented to require us to meet scientifically established targets as quickly as possible, without waiting for 2050. Canada must adopt accountability and transparency rules as soon as possible. Starting now, the government must consider all the repercussions of climate decisions from coast to coast and from north to south.

A real climate test should force the government to immediately stop subsidizing fossil fuels and to do away with the Trans Mountain pipeline. According to official figures from the Energy Policy Tracker, since the beginning of the pandemic alone, the Canadian government has invested more than $30 billion in subsidies for the fossil fuel sector. That is equivalent to over $800 per Canadian, without taking Trans Mountain into account, which will cost taxpayers more than $12.6 billion over the next few years.

Right now, our government is funding the destruction of our children's future. That money must be invested in the economy's green transition. The Canadian government must directly support workers and communities that depend on fossil fuels, so that they can start looking for solutions.

Second, focus should be placed on the green tax system.

That would help internalize the environmental and social costs of products and services. The polluter pays principle should be applied along the economic chain. That will create real incentives for investing and disinvesting money in order to reduce the environmental footprint of our individual and collective behaviours. Since the wealthy consume more goods and typically pollute more than those less well off, they would have to take on their fair share of responsibility.

The carbon pricing policy implemented by the current government must be only the beginning. Extended producer responsibility in terms of producers' impact on the environment and on society must apply to all economic sectors and to all types of pollution along the economic chain.

I have unfortunately gone over my time, but I want to appeal to you once more. We are asking you to make decisions that truly take into account the future of our children, and of your children and grandchildren.

Thank you for your attention.

● (1130)

The Chair: Thank you very much.

Up next are the representatives of the Quebec Forest Industry Council.

Go ahead for five minutes.

Mr. Jean-François Samray (President and Chief Executive Officer, Québec Forest Industry Council): Thank you very much, Madam Chair.

Good morning, ladies and gentlemen members of the committee.

Thank you for inviting me to contribute to your discussion on the green economic recovery from the COVID-19 pandemic.

My name is Jean-François Samray, and I am president and chief executive officer of the Quebec Forest Industry Council, which brings together sawmill, veneer, pulp, paper, cardboard and panel companies in Quebec, as well as engineered wood manufacturers.

Today, I want to stress not only the importance of the forest industry's role in our communities' economic recovery, but also the fact that it will be just as much of a key player in the fight against greenhouse gases, or GHGs. Various levels of government will be responsible for creating the context to enable the forest industry to participate fully in those two issues and to support its efforts in innovation, so that it can help reach our objectives.

The Quebec forest industry, which generates over 142,000 jobs, is the economic engine of some 900 municipalities. Nearly 70% of Quebec's municipalities are connected to that industry. The average annual income in the forest industry is $66,500. That sector contributes $41.5 billion to the province's economy and $17.7 billion to the gross domestic product.

Just recently, a study conducted by PricewaterhouseCoopers showed us that, in 2019 dollars, and not at the cost of wood today, $150 is collected in taxes per cubic metre of processed wood. Of that amount, $50 is going to federal coffers. So investing in the forest sector is a win–win–win initiative. It is a win for the economy, for communities and for the environment.

A number of international studies emphasize the importance of an active and responsible forest industry. Among them are studies carried out by the United Nations Department of Economic and Social Affairs, the Food and Agriculture Organization of the United Nations, or FAO, and the International Energy Agency, or IEA. Added to those studies is the Natural Resources Canada annual report titled “The State of Canada's Forests”, which demonstrates that triple role.

So it goes without saying that we are happy the federal government is investing $3 billion over the coming years, so that two billion trees can be planted in the near future. However, a portion of those trees must be harvested eventually to enable sustainable forestry, which could make the most of the various iterations of that carbon neutral product. When a tree is cut down and sawn into planks, it sequesters its carbon longer than its counterparts left to themselves in the forest. In other words, when wood is used as a building material, its CO2 retention period is extended. It is a better alternative to other building materials, such as steel and concrete, which consume up to 34% more energy and emit 81% more GHGs.

Our industry is not short on challenges. The softwood lumber sector is booming, and the demand comes from the United States, Canada and from around the world.

However, the United States Department of Commerce imposes countervailing duties on softwood lumber imports from Canada. But the World Trade Organization, or WTO, concluded in its final report that Quebec is complying with international trade rules. We are counting on the Canadian government to use the WTO's conclusions and require an exemption from countervailing duties on products from public forests, an exclusion for businesses that mostly get their supply on the American side, and an integral refund of the money already collected.

When it comes to innovation, the panel sector and the pulp and paper sector are undergoing a complete transformation and are innovating constantly. Concerning panels, a great deal of research is going into the production of new green adhesives to meet consumer demand. The pulp and paper sector is no exception. A number of innovations have been announced over the past few months, including by FPInnovations, which uses cellulose in the manufacturing of products to fight against COVID-19.

So government support in research and development and in innovation is crucial, especially for FPInnovations, but also for the academic sector and for businesses, to help the industry make a shift and remain a leader in the new green economy.

We also think that using biomass in the heating sector must be done by adding depth to the stream, and not by cannibalizing existing businesses that are making value-added products.

● (1135)

In conclusion, we feel that the government must invest much more in the Investments in Forestry Industry Transformation program, the IFIT, because $55 million, the amount allocated over two years, is clearly insufficient.

Thank you.

The Chair: Thank you very much.

[*English*]

Our next presentation will be by Mr. Kung.

You have the floor for five minutes.

Mr. Alexander Kung (Director of Sales and Business Development, Tavos Industries Inc.): Thank you, Madam Chair.

I'd like to thank the members of the Standing Committee on Industry, Science and Technology for this study on economic recovery after COVID-19 and for having us here as a witness today.

My name is Alexander Kung. I am the director of sales and business development here at Tavos Industries. I want to take this opportunity today to share our experience this past year as a rather young company while navigating through the pandemic.

Tavos opened up its business in late 2018 as a manufacturer of paper alternatives. Our short-term goal is very simple. We want to educate and aid our own community in transitioning away from single-use plastics. Long term, we would like to see a complete halt of the use of single-use plastics by 2025.

We stepped into full manufacturing of green consumer products and packaging that would hopefully make a dent in our annual three million tonnes of plastic waste. We know that Canadians recycle only 9% of this plastic waste. We do we need to do better. We were very happy to see the government plan to ban single-use plastics back in 2019. We urge the Canadian government not to delay this any longer.

One of our next plans is to diversify from paper alternatives to bamboo products as well. We have several projects in our pipeline that target different single-use plastics in common households in the next few years. Unlike trees that take decades to come to fruition, bamboo is a fantastic alternative to single-use products.

I also want to touch on our experience as a younger company this past year, as we also did enter into a completely different new industry. When the pandemic began last March, our business essentially collapsed alongside the hospitality industry, when hotels, restaurants and bars were forced to close. This was very devastating for us, having to lay off a significant number of our employees and not knowing whether or not we would survive post-pandemic. We decided to temporarily pivot our business to manufacturing hand sanitizer and other PPE to assist in the massive shortages we saw in our community. This was very challenging for us as a young company, entering a completely different market, operating with 30% of our staff capacity and realizing the complete market domination of imported PPE.

As we started to manufacture our first PPE product, which was hand sanitizer, we witnessed hundreds of thousands of bottles thrown away around our own community. We believed there should be a better alternative to this. We decided to take it a step further and ditch the use of plastic bottles. We spent our first few months innovating and pioneering the first-ever single-use packet of sanitizer, which is made of 95% paper material. We are on track to manufacture a 100% completely biodegradable packet that can hold sanitizer as well.

As Canadians continued to purchase more, the demand grew for higher-quality, domestically made PPE. There were many instances in the past year where imported sanitizers contained traces of mercury, lead or methanol. This is very toxic to human skin. More recently, imported masks in Quebec contained graphene, which, if consumed in consistent or large amounts, could result in some lung damage.

All these problems resulted in an influx of new Canadian manufacturers. The industry itself did flourish. We partnered with members of the Canadian Association of PPE Manufacturers, CAPPEM for short, which is a rather newer association that employs over 1,000 Canadian PPE workers and aims to ensure that Canadians will never again be vulnerable to shortages of PPE during a time of pandemic or otherwise. We have also partnered up with several Canadian PPE manufacturers across the country to share our own resources and accessibility to certain products.

We also partnered up with a company that manufactures the Air Sniper. It's a very effective air sanitation device that uses UVC technology. In December 2020 it was tested and proven to kill COVID-19. The Air Sniper is a Canadian product manufactured in Alberta. It is a highly impactful solution that we have today that can allow our companies to open safely and help jump-start the economy. Unlike other air sanitization devices, it also produces zero ozone.

We recommend that the Canadian government not delay the ban on single-use plastics any longer; look inward when procuring for PPE, as Canadians are now more than capable of supplying domestic demand; and implement technologies like Air Snipers to help transition to opening our businesses safely in, hopefully, the final phase of this pandemic.

Thank you. I look forward to answering any questions.

● (1140)

The Chair: Thank you very much.

With that, we will start our rounds of questions with a six-minute round.

[*Translation*]

Mr. Généreux, the floor is yours for six minutes.

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

My thanks to all the witnesses for joining us today.

I will first turn to Ms. Waridel.

We have met before. You once stayed in my constituency, at Notre-Dame-des-Sept-Douleurs, on the beautiful Île Verte.

Ms. Waridel, the Liberal government has set itself the target of decreasing greenhouse gas emissions by 40% to 45% of 2005 levels by 2030. Given that Canada has not reached the targets it has set itself in the past and that those emissions continue to increase, do you believe that the targets are realistic?

We must also recognize that Quebecers have become great purchasers of sport utility vehicles, SUVs, which somewhat contradicts our claim that we are focused on the future in environmental terms.

Could you explain that contradiction on the part of Quebecers?

Dr. Laure Waridel: Thank you for your questions, Mr. Généreux.

Are the targets actually realistic? That depends on one's point of view. It seems to me to be much more unrealistic to fail to tackle our greenhouse gas emissions more seriously than we are. That requires changes much greater than those that the Liberal Party is currently considering and proposing.

We should be modelling ourselves more on the Scandinavian countries, for example. They have not set 2050 as the date for reaching carbon neutrality. They want to do it as soon as possible. We have to look at carbon neutrality as an objective to be achieved as soon as possible.

You ask me whether or not that objective is realistic. Let me ask you: when some major players on the planet decided that they wanted to go to the moon, do you believe that they asked the engineers how far they could get? No. They said: "The objective is to walk on the moon. Now we have to find the means, to develop the technologies and to do what has to be done to achieve that objective." I feel that we need that kind of mindset if we really want to protect the future for our children.

We must listen to the science, and we are not doing that at the moment. Basically, we are not ambitious enough.

Mr. Bernard Généreux: Don't you believe that we are already listening? There have actually been some fundamental changes.

"Matter can neither be created nor destroyed", they say, and my mother always used to say something similar. So we know that we will need petroleum for another 30, 40, 50, 60 years at least, maybe 100 years, for transportation, for heating and for everything else.

I feel the industry is adapting and making major improvements.

Do you at least acknowledge those improvements? Honestly, if we don't get our petroleum in Canada, where are we going to get it from?

Dr. Laure Waridel: I acknowledge that some efforts have been made, such as the proposals for the circular economy. We did not have time to really talk about them in our presentation, but they are in the document we submitted. That is certainly one way to apply the principle that "matter can neither be created nor destroyed" and to model ourselves on nature. However, we have to do more than that because, at the moment, despite all the talk, our greenhouse gas emissions are actually increasing.

When we look at the various sectors of the Canadian economy where emissions continue to increase, first place undeniably goes to the oil sands and to fossil fuels. So we have to look at the science and the exact figures. We have alternate solutions. We waste a huge amount of energy. You mentioned SUVs, that's a great example. We must find other ways to meet our transportation needs without using as much petroleum.

Petroleum will be an issue as long as we keep investing in infrastructure, in pipelines and such, that needs to remain profitable for decades. But we know that we have start the race for carbon neutrality now. The future, the health and the quality of life of our children all depend on it. So we must find other solutions. We must reframe our priorities around what is most important for us, and that, in my view, is our children.

[*English*]

Someone said earlier that we're killing jobs. In my opinion, we're killing the future of our kids right now. That's what we do when we buy a pipeline.

● (1145)

[*Translation*]

That is what we are doing when we subsidize fossil fuels to the tune of $30 billion. That money should be going directly to support the workers. With $30 billion, how many people could we pay to move to other sectors full-time? Alberta has potential in solar and wind energy, and they are just starting to explore it.

Mr. Bernard Généreux: Ms. Waridel, I understand the objective. We all agree that ultimately we are going to have to reach carbon neutrality in order to leave our children a much cleaner environment. I have grandchildren myself.

I commend your movement, Mothers…

Dr. Laure Waridel: Mothers Step In.

Mr. Bernard Généreux: I commend the Mothers Step In movement.

I might really want to start Fathers Step In.

Dr. Laure Waridel: We need you to do that.

Mr. Bernard Généreux: I feel that fathers are as responsible for children and grandchildren as mothers.

It's fine to set grand objectives, such as those you have mentioned. In my opinion, consumers will make the difference. Governments have a role but there also needs to be personal awareness and responsibility. I make an effort every day myself: I have had the same car for nine years, with a diesel engine and 450,000 kilometres on the odometer. The fact that I have not changed my car in all that time is good for the environment.

The Chair: Thank you very much.

[*English*]

Our next round of questions—

[*Translation*]

Dr. Laure Waridel: Can I answer that?

The Chair: I am sorry but the member's time is up. You may have the opportunity to answer in the next round of questions.

Mr. Bernard Généreux: I am sure that Mr. Lemire will come back to it.

Dr. Laure Waridel: Thank you.

[*English*]

The Chair: I'll now go to MP Amos.

You have the floor for six minutes.

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

Thank you to our witnesses.

I won't waste any time.

[*Translation*]

This is a very important issue for us all.

I would like to focus on the testimony from Mr. Samray and Ms. Waridel.

The constituency I represent is located in the Pontiac region. Historically, forestry and sustainable development have been important in my constituency and that remains the case today. It is actually one of the most progressive constituencies.

I don't know whether Ms. Waridel remembers, but I was previously a lawyer. I represented Équiterre in matters related to chapter 11 of NAFTA, including in *St. Lawrence Cement Inc. v. Barrette*.

So I understand that there has to be a happy medium between regional representation and the need for development. We have to make a green shift in terms of natural resources. There must also be changes in legislative and economic institutions so that we can get to the vision that the organization that Ms. Waridel represents would like us to consider.

Here is an invitation to Ms. Waridel and Mr. Samray. I would like to be able to meet with each one of them separately.

Here is my question, which I am asking as parliamentary secretary to the Minister of Innovation, Science and Industry.

Our government has just announced a historic fund of $8 billion for our industries to make the green shift. It is unprecedented. Whether it is for cement, steel, aviation or forestry, funding is available through the net zero accelerator fund.

What are your concerns and your suggestions for managing those funds? What would the eligibility criteria be? What we are talking about at the moment is not vague, it is very specific. In the budget, we made an investment of $8 billion. What will we do with that money?

● (1150)

Dr. Laure Waridel: As I had the floor previously, I will let Mr. Samray answer your question. After that, I can gladly answer.

Mr. Jean-François Samray: Thank you, Ms. Waridel.

For the Pontiac region, I believe the important factors are diversification and the development of new products. As I mentioned, the budget proposes an investment of $55 million in the IFIT program. That is clearly insufficient, given the popularity of the program. There are a huge number of applications. Some projects have been recommended but, once three or four projects have been approved, there is no longer enough money.

You mentioned an investment of $8 billion. That is a good investment. However, the investment is $8 billion for the entire economy. Let me use an image: it is as if someone invited everyone in the neighbourhood to his house, once the pandemic is over, and said that he'd be buying the beer for everyone. But he puts only one case of 24 on the table.

What I mean by that is that $8 billion is a good start, but more investments will be needed. You have to count on the conversions and to conduct lifecycle analyses. There have to be jobs and employees have to be converted to them. In my opinion, that is critical. We must ensure that the products developed give us an advantage.

You just have to look at what the governments in Finland and Sweden have done for the paper mills controlled by Stora Enso and UPM. Why are those companies now leaders? Because the government was there for them.

Mr. William Amos: The net zero accelerator fund excludes no industries. You are focusing on IFIT, but that doesn't mean that there are no other possibilities.

Mr. Jean-François Samray: I agree with you, Mr. Amos. That's precisely it. Because no one is excluded, everyone is included. Eight billion dollars for everyone is just a start.

Dr. Laure Waridel: Thank you for your question, Mr. Amos.

Let me add to Mr. Samray's comments. If you compare $8 billion to the $30 billion that have been given to the fossil energy sector since the beginning of COVID-19, you realize that the priorities were perhaps poorly chosen in terms of a green recovery. Very concrete choices need to be made.

I would like to emphasize that we have to make the right decisions and avoid simply shifting the problems to other sectors. We must therefore base ourselves on lifecycle analysis criteria that consider the impacts, the problems and the solutions from the time the raw materials are extracted to the end of the production cycle and even to the post-consumer use stage. Sometimes solutions that are falsely good are suggested. At the moment, for example, nuclear power is being widely talked about as a solution. Nuclear power may produce few, if any, greenhouse gas emissions, but it generates other problems that will also fall onto the shoulders of our children.

So it is important to look closely at the science and to conduct lifecycle analyses. It's also helpful to look at the circular economy in general, starting with source reductions.

Mr. William Amos: Thank you.

Given that time is flying, I would invite our witnesses, after this discussion, to send us recommendations for the net zero accelerator fund.

Dr. Laure Waridel: I will gladly send you some.

[*English*]

The Chair: Thank you.

[*Translation*]

Mr. Lemire, you have the floor for six minutes.

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

I would like to start by paying tribute to Serge Bouchard, whose death we have just learned about. In the context of this study on the green economic recovery, we had in him an inspiring model precisely for the way we can live together with the planet, with Indigenous peoples, with our origins and with our roots. As an anthropologist, his legacy to us was a whole story, our story. I believe that it is incumbent on us to assume the responsibility of living his message. I am grieving deeply this morning and I wanted to share it with the members of the committee.

My question is for Mr. Samray from the Quebec Forest Industry Council.

You have talked about the bioeconomy, which uses resources from sources such as agriculture, forestry, biomass and organic waste.

In your opinion, do the best solutions in supporting a focus on bioeconomy in Canada lie in increasing the budgets for basic research and developing a value chain for secondary and tertiary processing of forestry resources?

Parallel to that, what do you think of the Investments in Forest Industry Transformation program, the IFIT you have talked so much about? Which aspects of the program can be improved?

● (1155)

Mr. Jean-François Samray: That is too vast a question for me to be able to answer it in five minutes. My colleague Michel Vincent may be able to answer it as well, because he is our reference point for economics.

When you cut down a tree, you use the trunk to make boards. But, since you are cutting a square from inside a circle, material is left over. Residual forest biomass means that the material left over has a value in that it can be used to make panels, or even to produce bioenergy. That is a plus, because it can replace fossil fuels and the carbon you produce is biogenic. It is a plus for the economy.

However, as we said in our presentation, we must ensure that those products come in addition to those made by companies whose products also add value. We do not want to cannibalize them. At the end of the day, if we close a panel board mill to supply a pellet plant, we will not necessarily have improved the situation in terms of the entire lifecycle. You have to pay attention to where the plants are located.

In terms of research and development, I gave you the example of the UPM paper mill, which, with government support, took its black liquor and developed it into biodiesel. Please, take a look at UPM's financial statements. Don't take my word for it, check them yourselves. It will show you that biofuels now make a fortune for the company. It was able to use a residue that used to be burned off and make it into a product that meets a social need.

Investment in research and development is critical and the role of the state in creating a receptive market to attract those products is also critical. I am thinking, for example, of the role of the Canadian Armed Forces, a major purchaser of goods. By increasing the amount of biofuels used by the Canadian Armed Forces, the federal government can use that leverage to create an economy. The Americans are doing it and it is working very well for them. I don't see why Canadians would not do it.

As for the IFIT program, I can say that, in the Pontiac and the Gaspé, by way of example, the forests are hardwood. Everyone agrees that those species are made to be harvested and they are somewhat getting in way of developing and harvesting softwood, which would help the construction sector.

A company that wanted to make pallets of bonded wood that would prevent parasite infestations during transportation applied for financial support under the IFIT program. They were told that it was a very good project that was recommended and they would be given money when it was possible. Unfortunately, there never was enough money. The program does not have enough money.

Mr. Sébastien Lemire: We feel that many federal programs have closed envelopes that limit innovation. You never know when innovation will happen. I understand your point.

I would like to ask you another question.

The federal government could implement a public procurement policy that would encourage the use of wood, including establishing the carbon footprint as a criterion for awarding contracts.

What do you think the benefits would be for forestry companies and the environment? Should that be promoted as a principle?

Mr. Jean-François Samray: I think so. Wood used for construction is carbon-negative, because it reduces emissions from buildings. Many of you have the Canadian flag behind you, with a maple leaf on it. Perhaps the architecture of our buildings should reflect the importance of forestry and wood.

The Chateau Montebello is great, and the Alpine Club of Canada makes beautiful houses. But if public buildings were made of wood, it would show our pride in that.

Mr. Sébastien Lemire: We are talking about the fight against climate change. In your opinion, why should the federal government do everything it can to obtain a full exemption from any tariff on Quebec lumber exports to the United States?

We are talking about $1 billion for Quebec and $5 billion for the rest of Canada that is stuck at the border. The money could help boost our economy.

● (1200)

Mr. Jean-François Samray: The federal government really needs to work with associations like the National Association of Home Builders in the United States, which has written to more than 90 members of Congress. We really need to unclog this issue.

[*English*]

The Chair: Thank you so much.

Our next round of questions will go to MP Masse.

You have six minutes.

Mr. Brian Masse (Windsor West, NDP): Thank you, Madam Chair, and thanks to our witnesses.

I'll go to you, Ms. Petrunic. With regard to the budget, what opportunities do you see out of that? It has to be passed, and then there's a second budgetary bill that needs to be passed in September, but do you see any opportunities for transit out of the budget? What are they?

Dr. Josipa Gordana Petrunic: Thank you very much for the questions, Member. I appreciate it.

There are some very obvious opportunities that were articulated as far back as the Speech from the Throne and now are in the budget that has emerged. It's very clear, based on our calculations with our transit agencies, that if you want to get to zero-emission transit technology and get to zero at the municipal level, it's going to cost about $4 billion to get to the first 5,000 and, therefore, about $12 billion to get to all 15,000. The budget did identify $2.75 billion, essentially, for ZEB technologies and, within that, the $15 billion in permanent public transit funding. There's no doubt that it is a significant way forward towards those capital investments. That has been identified.

Some of the elements within that, though, are the nuanced items that we'd like to identify, building on some of the comments already articulated. Throwing money at the problem won't necessarily solve the problem if people don't know what to buy. In the zero-emission transit world, it is complicated. It is complex from a technology standpoint and an energy system standpoint, so we have advocated for the idea that a small portion of that should go towards feasibility studies, something along the lines of a small amount such as $10 million, which doesn't sound small to a Canadian, but in the grand scheme of things and in a budget like the one we've seen, it's a relatively small amount that could be allowed for transit agencies. There are about 20 of them in Canada that need to run their feasibility studies so that they know exactly what kind of battery electric bus to buy, what kind of fuel cell bus to buy and what kind of fuel supply chain to have. That's a small amount.

We've also identified the need within that $15 billion of permanent funding, or the $2.75 billion announced for ZEB, zero-emission bus technology, for about $10 million to be allocated to data analytics. This is a new area for transit and technologies in the public fleet domain. Generally, they don't collect data in real time about the energy performance of their systems. You didn't need to when the world was diesel and you could waste energy going up a hill and accelerating, with the heating turned on. It was terrible energy efficiency, but diesel was cheap enough that you could do it.

Now you can't waste an electron and you cannot waste a hydrogen molecule because you may run out of power in the middle of the day. The only way to assess that is data analytics. The only way to do that is a small amount of funding there within that program for telemetry devices, loggers and a data analytics program for transit.

Those are some of the opportunities we foresee. The signals are positive. It's now just that the devil is in the details and the nuancing.

Mr. Brian Masse: Ms. Petrunic, I'm going to move to Mr. Samray, but the problem is this. We have a lot of signals on child care, pharmacare and a series of different things. When you have expenditures crossed over almost a decade of spending, it's a real challenge.

I'm glad you mentioned the analytics with regard to the data and all those things that haven't really been compiled before. They are really important, especially with climate differentials and so forth, and expectations for consumerism. Moving them to public transit is part of the information gathering that really needs to be a confidence builder for people, because then they have a lot more strength with those things in mind.

Real quickly, Mr. Samray, we talked about this last night in the Investment Canada Act report we did—the closure of Rona in the buyout by Lowe's. Do you have any comments in terms of how that's now affecting our building and our opportunities for our communities? I see that lack of competition is an issue, but perhaps you might have a different perspective.

Mr. Jean-François Samray: If you don't mind, Mr. Masse, I will let our chief economist, Mr. Vincent, answer the question.

Mr. Brian Masse: Yes, that's fine. Whatever works is good.

Mr. Michel Vincent (Director, Economics, Markets and International Trade Branch, Québec Forest Industry Council): Thank you, Mr. Masse.

Actually, we still don't have an idea on the subject, because the news is too recent. All in all, I don't believe that this is going to make a huge difference in the price of softwood because—

[*Translation*]

The Chair: I'm sorry to interrupt you, Mr. Vincent.

[*English*]

We won't be able to pick up the interpretation with that microphone.

● (1205)

Mr. Michel Vincent: What do I do?

Mr. Brian Masse: I'll go on to a different question, because it is a health and safety issue for our interpreters.

My apologies to you, Mr. Vincent, but the reality is that it disrupts our interpreters, and they have a tough enough job as it is. I'll maybe go back to the transit question, because there's more to say there, and I can follow up off-line for questions.

Thank you, Mr. Vincent, but it is important for our translators.

We were talking about the data assembly. What are the concerns or the issues that you've already worked on for privacy? Privacy is one of the things that pops up with regard to collecting information and to confidence amongst users. Is that baked into some of the work you're doing right now? I see that as an issue. It's almost like a distraction, but at the same time, it is important to cover it off. Perhaps you can provide a little information about that.

Dr. Josipa Gordana Petrunic: Thank you, Mr. Masse.

It's a perspicacious question and certainly it's the first thing that comes up when folks think about Sidewalk Labs and that boondoggle and everything that unfolded from that.

When we talk about data analytics and the transit and transportation world, whether it's bus, coach or truck, we're really talking about impersonal analytics of the machine. It's putting the loggers on the machine, the bus, the coach or the truck to determine how many units—how many kilometres—it is going per unit of energy. What is its efficiency on the powertrain? Is the motor performing at the efficiency level that the operator expects?

We put loggers on the chargers to know exactly how many electrons are coming from the grid and making their way through to the battery pack and being lost on the way. All of that adds up to dollars and those dollars add up to millions of lost dollars when you're talking about a complex transition to this kind of energy system.

Personal data is a non-issue right now because the data analytics we're talking about are analyzing the bus, the charger, the energy storage device, the fuel cell stack, the hydrogen electrolyzer—the energy systems or the inanimate objects that perform the actual propulsion.

Is it possible that, over time, in the creation of such a data trust, one could identify opportunities in obtaining the consent of riders in order to also track them? In the interest of transit, yes, it is a hypothetical possibility. If a data trust led by transit and communities were set up in the future, there would potentially be merit in asking Canadian riders if they would consent to having their data tracked. The primary reason for doing that would be to hand back benefits to transit riders in the sense that where you ride, how you ride and the time you ride should give you some reward or price deduction on your transit ride. That's an issue for a few years from now.

The big issue right now is the performance of the energy systems.

Mr. Brian Masse: Informed consent....

I see the red card is up, so thank you, Madam Chair.

The Chair: Thank you very much.

We'll now start our second round of questions. Our first round goes to MP Dreeshen.

You have the floor for five minutes.

Mr. Earl Dreeshen (Red Deer—Mountain View, CPC): Thank you, Madam Chair.

I must say that I was a little nervous with the data trust to track people, but hopefully it will be a long time before that happens.

In the discussion this morning, we've heard about plastics versus no plastics. We've heard about responsible resource development versus no oil and gas, no pipelines—even though there are pipelines going in all over the world. Ethically produced oil versus ethical coffee is something I talk about.

Our push for electric vehicles, of course, results in a push for mining in Canada. My concern is the “not in my backyard” mentality, where we're going to have activists who will no doubt be against Canadian mining interests when we get to that stage. It's easy to talk now about how we should be able to build batteries and storage. It is very critical.

Again, as someone who was a schoolteacher for 34 years, I think it's important that we prepare our children, not scare them. I think that's something we should be taking a look at.

To Mr. Lyman, there's a lot of public information concerning environmental damage that would result from a transition to sources of energy like wind and solar. Mining for raw materials, as I had mentioned, is going to increase. We've had to build and expand a whole new infrastructure made from hydro dams and wind farms. Do we believe it makes any sense to turn our backs on the traditional sources of energy? What are other countries like the U.S. doing? Are they abandoning their fossil fuels?

Mr. Robert Lyman: The short answer to that question is no. The point that always seems to get lost when talking about energy transitions is that 84% of the energy currently being consumed in the world is based on fossil fuels. Only 5% is based upon renewables and about 2% of that is wind and solar. These are very new energy sources. They are a long way from being major sources of energy supply. Even if one can move to achieve more efficient or more diverse sources of energy in the world, it will take time.

Vaclav Smil is a professor of geography at the University of Manitoba and the world's foremost expert with respect to energy transitions. He estimates that a major energy transition of the type that's being contemplated now would take 50 to 70 years to conclude.

These transitions are occurring all the time. They certainly are possible, but the key question for governments is the extent to which they attempt to accelerate the pace of such transitions when doing so requires extensive use of regulations, taxation and mandates.

● (1210)

Mr. Earl Dreeshen: I think that's one of the key components. We have the natural resources. We have the technology. We have the ability to create those products that we have in a world class manner. If we want to shut ourselves down, of course, that simply means that it's going to be taken up by others.

I think you are probably aware that the Danish economist Bjorn Lomborg notes in one of his books that even if all of the signatories to the Paris Agreement met their global greenhouse gas emission reduction targets, there would be no measurable decline in global warming, but trillions of dollars of public funds would be wasted making people he refers to as green crony capitalists rich. Would you agree with that statement?

Mr. Robert Lyman: Yes. Bjorn Lomborg is an expert and someone who believes that humans have a role in the warming of the planet, but that there are far more important problems for the world and that the cost of the transition that's been talked about is far too high.

Mr. Earl Dreeshen: Thank you.

I see that the yellow card is there. Thank you very much.

The Chair: Thank you very much.

We'll now go to MP Erskine-Smith.

You have the floor for five minutes.

Mr. Nathaniel Erskine-Smith (Beaches—East York, Lib.): Thanks very much, Madam Chair.

I want to begin with the Canadian Urban Transit Research and Innovation Consortium. Many of the recommendations I see in a recent report.... Some relate to federal governments, provincial governments, municipal governments. I wonder, given the level that we're at, if you could focus in specifically as it relates to what your views are on recent initiatives via the budget and the fall economic statement and what more you would like to see the federal government move on going forward, keeping in mind federal jurisdiction.

Dr. Josipa Gordana Petrunic: The first thing I would say about that, and I'll give a little example to highlight it, is that the signals going forward in terms of the investment in public transit are critical. They're great, but what needs to be refined out of that? As an example, the real pressure coming from our industry partners and our transit partners is that investment from the federal government needs to be partnered with municipal investment.

That's not so much a dollar figure. That's a philosophical issue around how the federation will work with our cities going forward to transfer that money to them, to the transit agencies. The big issue that has come up is that, if any of that funding flows through provinces, it's going to become highly problematic, become a bottleneck, not get deployed and certainly not achieve 5,000 zero-emission buses by 2024-25.

One issue there is the philosophical issue and the constitutional issue of how to work with the cities and transit agencies directly to deploy that money. If that can be achieved, then we know in agencies across this country from TransLink to London to Quebec City, there are about two dozen cities that are ready to roll.

The second point of recommendation is that, if there is a way to get the funding to the cities and transit agencies quickly, it won't be all cities and transit agencies that are ready to absorb it on day one. If we try to do the Canadian thing of spreading the peanut butter thin and handing out some money to all cities with transit, it's not going to be effective in achieving our transition goals or the 5,000 bus goal. Instead, what has to happen is a focus on those 20 to 25 cities and transit agencies that meet three KPIs.

First, their municipality has passed a climate action emergency or a ZEB target, which means city councillors and mayors are not going to be the obstacle. They're already philosophically and politically aligned.

Second, the agency has already deployed, on its own dime or in partnership with the province or federation, a pilot or first procurement of buses. Trying to send millions of dollars and tens of millions to a city that has zero buses right now is not going to be the fastest way to deploy the money effectively. There are a couple of dozen agencies in Canada that, on their own dime over the last four years, when it wasn't popular to do so and was very complex and difficult, actually deployed buses already. That's TransLink, Montreal, Toronto, Calgary, Edmonton, etc., and Laval and Grande Prairie, so some of the smaller cities too.

The third KPI is that the agency has to have a feasibility study done. In previous funding from PTIF to ICIP and other kinds of federal funds, there was no requirement that the city or transit agency show up saying, we did the physics and the mathematics, we know what kinds of buses, charger systems or hydrogen fuelling we need. Instead, money was deployed and often with a high-pressure timeline. The result of that was that we did get procurements, but they weren't the best procurements for those communities.

Nobody wants wasted tax dollars, so the third KPI is to target the initial tranche of funding in the next 24 months to those cities that have done the feasibility studies, the transit agencies and cities that have a climate action commitment at the council or regional level and that have already deployed at least a pilot or initial procurement. The second tranche of agencies that follow soon after are the ones that haven't deployed a pilot or initial procurement but have the feasibility work done and the climate action commitment.

If you use those three simple KPIs, we will get to 5,000 ZEBs. We will transform the industry. We will retain investment by New Flyer, Nova Bus, ABB, Siemens, Ballard, Hydrogenics and the other players in this industry that, right now, are being pulled to California and are being pulled to Europe because of major procurements there.

● (1215)

Mr. Nathaniel Erskine-Smith: When you're talking about flowing dollars directly to municipalities, that would be welcome from my perspective. You mentioned delay challenges and provincial bottlenecks. Is there also a concern that it may politicize the issue in some context?

If I look at transit planning in Toronto, you have a lot of work that gets put into transit planning, and the premier does Ontario Line on the back of a napkin and tears up years of transit planning. Is that a concern as well?

Dr. Josipa Gordana Petrunic: I should clarify. I should say not just municipalities, but municipalities and regionalities, since York Region Transit and TransLink are regions.

I can't get into the ontology or eschatology of our transit investment. I don't think there's a transit dollar in the history of Canada that has not been politicized at some point in the past.

Mr. Nathaniel Erskine-Smith: That's fair enough.

Dr. Josipa Gordana Petrunic: Will it be effective? Yes, the cities and the regions are the most effective absorbers of the funds and the most effective in deploying those funds if we're serious about climate action. If we're not, spread it anywhere and go through the provinces.

Mr. Nathaniel Erskine-Smith: Thank you.

I am out of time.

The Chair: I'm sorry about that, MP Erskine-Smith.

[*Translation*]

Mr. Lemire, you have the floor for two and a half minutes.

Mr. Sébastien Lemire: Thank you, Madam Chair.

I would like to point out that my sons, Léon and Jules, will be 40 and 38 years old in 2050.

As a citizen, in Rouyn-Noranda, I participated in the activities of Mothers Step In, particularly those opposing the gas pipeline project, and I was certainly pleased to meet Ms. Robert.

I would like you to give us your proposals for our recommendations for the report.

Are there other topics you would like us to focus on, such as agri-food, the circular economy and mobility? What are your proposals?

Dr. Laure Waridel: Ms. Robert, would you like to say what you were not able to say earlier and comment on that?

Ms. Émilie Robert: To reduce the need to move people and goods, it is important to revisit the structure of societies and land use planning. We must implement four-day work weeks; facilitate teleworking through proper Internet access; manage land use to facilitate active modes of transportation and public transit, which is a must; promote local shopping; optimize the transportation of goods, and so on.

Reducing energy consumption and electrifying industrial processes are part of the whole circular economy. There is more: we need to reduce the ecological footprint during the entire life cycle, at all stages of providing a service or producing a good, from the extraction of raw materials, to the end of the product's useful life.

Therefore, it is important to incorporate the used material as a resource in the production cycle, instead of extracting raw materials, and to also embrace eco-design, by applying the five Rs, that is to say, reduce, repair, reuse, remanufacture and recycle, using renewable energy.

In the agri-food sector, we must seriously reduce the ecological footprint of our food, while improving our health. We must rethink our eating habits. This means reducing meat production and consumption, reducing waste, and investing in natural infrastructure.

We must not forget that the experts tell us that we must preserve biodiversity. This helps prevent the development of anthroponotic disease, such as COVID-19. Researchers have shown a correlation between the loss of biodiversity and the appearance of these diseases. We must not forget that we are part of the ecosystems that we are ruining in the name of economic growth and that, by destroying them, we destroy ourselves.

● (1220)

The Chair: Thank you very much.

[*English*]

Our next round of questions goes to MP Masse.

Mr. Brian Masse: Thank you, Madam Chair.

Mr. Lyman, what's your evaluation with regard to the investment in the auto sector in Canada versus the United States? I'm curious as to your perspective of where things are right now and, if there are missed opportunities, where we can take advantage of them.

Mr. Robert Lyman: To tell you the truth, I don't follow general investment trends with respect to the automobile industry. What I have followed to some extent, of course, is the investment in electric vehicles.

Recently, of course, there's been major funding of the Ford plant near Oshawa. I think it's $170 million to increase the funding there, and there's no doubt that there is a major movement, both within Canada and the United States, to increase the investment in and capacity to produce electric vehicles. Beyond that, I'm sorry. I don't have details.

Mr. Brian Masse: No, that's fair enough. Thank you for that. There also was an investment into Michigan. A sincere answer is appreciated.

I have another question with regard to transit. It's one of the things that we see in a city like Windsor, where we're trying to move our transit numbers up. It's an auto city.

Are there any suggestions for what we can do public relations-wise to move things along? It's one of the things that seems to be missing from the recipe of trying to get more people on transit. It's not just like transit or car. It should be a multi-thing. We even put bike racks on, and so forth. I'm just trying to figure out how to push this issue further.

Dr. Josipa Gordana Petrunic: Thank you very much, Mr. Masse.

If there's time, I'm happy to answer the auto question separately.

On the transit side, I'll say there are three things: jobs, operational savings and market position. In terms of jobs, one of the ways to position the municipal and larger level in terms of adopting these technologies is the fact that we've already identified at CUTRIC that there are over 264,000 jobs in Canada to be retained in the zero-emission transit landscape and another 30,000 to 98,000 to be created, so it's a good jobs story for Canadians to push forward.

On the ridership side in terms of getting people into transit, we have to price roadway. There's no other way around it. You're going to have to price roadway to drive the marketplace, and that is a fair dialogue to start having.

The Chair: Thank you very much.

We will now go to MP Lewis.

Welcome to INDU. You have the floor for five minutes.

Mr. Chris Lewis (Essex, CPC): Thank you very much, Madam Chair. It's an honour to be here.

Thank you very much to all of the witnesses for appearing today. There has been some fantastic testimony.

My first question will go to Mr. Sobot.

Thank you very much for your business. I understand through the CAAM committee I'm on that you produce pipe that is resistant, to some extent, to earthquakes. It's pretty special, and I think that's fantastic.

I also understand, sir, that 70 associations have sent a letter to U.S. Trade Representative complaining that Canada may be breaching NAFTA by doing so. How did the industry get an exemption last time, and what opportunities could be leveraged now?

Mr. Veso Sobot: That's interesting. Thank you for the question.

Last time, the government was very aggressive in selling their story in the United States. Essentially, they found out who the proponent was of buy America inside the American Recovery and Reinvestment Act. They found out that the proponent had access to the Canadian market unfettered, but the proponent was most worried about China.

The government had great discussions with them, and our bureaucrats did a fantastic job. They were able to secure a letter signed by the proponent that says they were fully supportive of the Canadian exemption. That letter was given to the Prime Minister, and the Prime Minister passed that on to President Obama. That was very instrumental in getting a Canadian exemption to buy America. There are always opportunities that can be leveraged when negotiating with the Americans.

Certainly green infrastructure is one right now. The Americans are very concerned as well about our nuclear waste that's up at the Bruce Power plant. They have indicated that they would be very willing to dispose of that in Michigan. We should and could use that as leverage in order to exact a Canadian exemption of buy America. That's something they want. We want something. There's no reason we can't come to some sort of an agreement. There are many other examples like that.

Mr. Lewis, you asked about our innovation. We make a pipe that is earthquake-resistant. It's called Bionax SR, and it's made in Saint-Laurent, Quebec. It's sold all up and down the west coast of the United States and Canada. That's another example of Canadian innovation fixing an American problem. I really believe that's what we should promote with the Americans. We should be working as a trading bloc, not working against each other.

● (1225)

Mr. Chris Lewis: Thank you, Mr. Sobot.

Through you, Madam Chair, to Mr. Lyman, I'm really fortunate. I am the Conservative auto caucus chair. I heard what you said to Mr. Masse with regard to not driving into auto, but you did speak a lot about EVs, electric vehicles. I will tell you that I had a conversation yesterday with the Global Automakers of Canada, and they are on track for 2030 for 121 electric vehicles.

However, in the meantime, they said that we still need pipelines. We need them desperately. I'm wondering, sir, with regard to Line 5, not losing jobs and keeping the economy going today, what the short-term impacts of having Line 5 shut down would do to our economy as we still strive towards zero-emission vehicles.

Mr. Robert Lyman: The shutdown of Line 5 would remove something in the order of 60% of the refined product supply for Ontario and, therefore, significantly increase prices. Hopefully there are ways in which some products, like gasoline and aviation fuels, etc., can be brought into the province by rail or by truck, but that will definitely be more expensive.

The ultimate answer to a permanent shutdown of Line 5 is the construction of an additional pipeline into the area. That would clearly take years to achieve, given the difficulties that other pipelines in Canada are having with permitting processes today, so it would probably increase prices considerably.

One of the things that's always been typical of transportation fuels is how energy inelastic they are. They are relatively unresponsive to significant increases in prices.

Mr. Chris Lewis: Thank you, Madam Chair.

Thank you, Mr. Lyman.

The Chair: Thank you very much.

We'll now go to MP Jaczek. You have the floor for five minutes.

Ms. Helena Jaczek (Markham—Stouffville, Lib.): Thank you very much, Madam Chair.

Thank you to all the witnesses today. We often speak about diverse views. I think today we've had some views that might almost be described as polar opposites.

My first question is to Mr. Kung.

First of all, I want to congratulate you on your entrepreneurial spirit and your ability to move to where the market is. Have you been able to take advantage, as a small business owner or founder, of any government programs through the pandemic? What has that meant for your business?

● (1230)

Mr. Alexander Kung: We did apply for one of the grants. That was in December 2020. That did help us innovate a little bit more. In terms of any other government funding, no, we really haven't received much or applied for many of those.

Ms. Helena Jaczek: We've heard from other witnesses that small and medium-sized enterprises actually have quite a difficult time navigating what the opportunities are. I'm wondering if you have any recommendations, as a small business, for the federal government in terms of the economic recovery going forward.

Could you give us some ideas that could help your type of business?

Mr. Alexander Kung: Yes, of course. In terms of a business of our size, especially as a new business, a lot of our pain points are getting noticed and making an impact, especially at the scale of what we operate. We would definitely like to see more access to funding.

We would also like to touch a little more on the Canadian companies that we actually partner up with. There are so many wonderful Canadian company owners here right now manufacturing PPE and other green products. A lot of us look for these requests for proposals that the federal and the provincial governments release for bids and tenders.

Unfortunately, a lot of us get overlooked in terms of our competitiveness and the prices that we can offer. A lot of these are awarded to imported products, like imported straws or imported takeout containers. Everything is very hard for us to compete with, especially with the labour and the wage that it costs for us to manufacture even one straw.

For example, an imported straw from China can cost less than half a cent. For us to manufacture just one paper straw on Canadian soil with Canadian labour, it costs us about seven or eight cents. It is very hard for us to compete, although we do target a little bit of the pain points. For straws, we don't just make a regular straw. A pain point is that when people drink out of paper straws, they get soggy and it's disgusting when you get [*Technical Difficulty—Editor*] in your mouth. We came up with a brand new coating. It is our own trademarked coating. We have paper straws that actually last in your drink for eight to 12 hours. We did target these pain points and come up with new ways to help people move. At the same time, straws are a cheap product, but any green solution is a solution.

Ms. Helena Jaczek: Thank you very much.

Ms. Petrunic, thank you very much for explaining just what CUTRIC does.

You mentioned some projects in the great Regional Municipality of York, and I was wondering if you could just describe the process that you engaged in—I believe you mentioned Markham and Newmarket—just so that we can fully understand your role in the whole process.

Dr. Josipa Gordana Petrunic: Three of our major projects are all focused on standardization and interoperability from a technology standpoint, because the last thing the taxpayer wants at the municipal or provincial level is to be forced to buy stuff that only works with one proprietary solution. That's okay for your Macintosh, but it's not okay when it's a bus.

Our role was really in the electric bus world, the hydrogen bus world and with the autonomous vehicles in Markham and York region and so on. It was to get manufacturers that are competitors together around the table—which is normally impossible to do—and to get them to agree to redesign their systems in Canada to be plug and play with one another so that they communicate with one another, can plug into any kind of charger and have vehicle-to-vehicle communications that are equivalent. It was then to get champion transit agencies to deploy that stuff.

That is our role. We herd the cats. We get the idea together, and then we project manage and engineer it to a solution to retain the jobs here and to show that it can work.

Ms. Helena Jaczek: Thank you very much.

The Chair: Thank you so much.

We'll now start our third round of questions. Our first round goes to MP Poilievre.

You have the floor for five minutes. Go ahead, MP Poilievre.

Hon. Pierre Poilievre (Carleton, CPC): Thank you very much, Madam Chair.

Thank you, Mr. Sobot, for being here today.

I want to address a few questions. First, in the last five years, has the company for which you work, IPEX, opened any plants?

● (1235)

Mr. Veso Sobot: We have expanded plants in both Canada and the United States.

Right now, though, we're looking at major expansions in the United States.

Hon. Pierre Poilievre: How about in Canada?

Mr. Veso Sobot: We've expanded some plants in Canada, but the opportunity in the United States is extraordinary right now. The construction sector is very hot, and we're planning on making greater expenditures down there.

Hon. Pierre Poilievre: Would you say that your growth will be bigger in the States than in Canada?

Mr. Veso Sobot: Yes.

Hon. Pierre Poilievre: Why is that?

Mr. Veso Sobot: Their housing market is very strong. The incentives down there for manufacturers are very good. They have had policies over the last five years that have made it very beneficial for manufacturers to repatriate to the United States. They have just been able to attract manufacturers in the United States much more than we have.

This is what I suggest for Canada: We should try to repatriate Canadian companies to expand in Canada in the same way that they have done.

Hon. Pierre Poilievre: The cost of electricity in Ontario, has that caused any difficulty for manufacturing jobs, in your view?

Mr. Veso Sobot: Absolutely. The cost of electricity in the United States is substantially lower, except compared to Quebec. Quebec's electricity is extraordinary. We have a number of plants in Quebec, and we take advantage of that. However, for the most part, electricity prices in Canada are much higher than those in the United States.

Hon. Pierre Poilievre: If the Ontario government had any brains, it would have just bought Quebec electricity, which would have made more money for Quebeckers and cost less for Ontarians. Instead, the previous Liberal government decided to pay price markups of thousands of percentage points in order to build windmills and solar panels that are worse for the environment than hydroelectricity from Quebec is.

Have you noticed in Ontario the price difference for energy since the Green Energy Act was brought into place?

Mr. Veso Sobot: It's absolutely extraordinary. The Green Energy Act jacked up prices very significantly. We went from eight cents, nine cents, 10¢ per kilowatt hour to 21¢ to 22¢. Some members of the Coalition of Concerned Manufacturers are paying 28¢ per kilowatt hour, so that makes it—

Hon. Pierre Poilievre: Wow, so, it's more than doubled or tripled.

Mr. Veso Sobot: Yes.

Hon. Pierre Poilievre: This is a cautionary tale of when government forces citizens to pay higher prices for electricity in order to subsidize the favoured technologies of central planners. What ends up happening is that you drive jobs and businesses out of the jurisdiction and into lower-cost energy jurisdictions like the ones where your company is expanding the greatest. Is that a fair statement?

Mr. Veso Sobot: It's a very fair statement.

Canada has so many resources. It seems that we're our own worst enemy. We are restricting our market opportunities. We are putting in obstacles all over the place.

Hon. Pierre Poilievre: This gatekeeper economy makes it harder to get things built. When you do get it built, you have to pay higher energy prices to subsidize trendy and well-lobbied-for energy companies. If you can manage to run a profit after that, you pay higher taxes. It is no wonder we're losing our manufacturing base to the United States and to other foreign jurisdictions.

Speaking of the United States.... We don't have a lot of time, but I can summarize. Under the previous government, Stephen Harper was able to garner an exemption to buy America. Has this government garnered an exemption to buy America so far?

Mr. Veso Sobot: No, not yet.

Mr. Poilievre, I think you remember how active the government was in getting that exemption. You participated in some of that. We'd love to see the same thing right now.

Hon. Pierre Poilievre: It would be good for jobs.

They failed on buy America. They have failed on softwood lumber. Now they're failing on keeping Line 5 open.

For my final question, can you give a list of essential products and services that would be illegal if the government bans plastic as a toxic?

Mr. Veso Sobot: The problem with calling plastics toxic is that you'll have to label the products as they across the border. All of a sudden, they'll become a hazardous good. There's no way that this needs to be done. The issue is litter. The issue is not toxicity. There's no scientific study that shows that plastic is toxic.

The Chair: Thank you so much.

We will now go to MP Jowhari. You have the floor for five minutes.

Mr. Majid Jowhari (Richmond Hill, Lib.): Thank you, Madam Chair, and thank you to all the witnesses for their testimony today.

I'm going to go to Mr. Kung. Welcome to our committee.

In your opening remarks, as one of your recommendations, you talked about how we should look inward. You also highlighted that Tavos is working with the Canadian Association of PPE Manufacturers.

Can you share with us what you exactly mean by looking inward?

● (1240)

Mr. Alexander Kung: Yes, of course. Thank you for the question.

By looking inward, I mean specifically with tenders. A lot of bids are awarded to companies who have either imported from China or India, especially with PPE. You have a list of 30 to 50 local manufacturers, as well as right here in Ontario where we do have a little network between ourselves. The very large company that can import these at a fraction of our cost is the one that always wins.

The problem with that is that we see a lot of problems with the quality of the PPE that actually gets dispersed to the general public, such as in Quebec with the graphene masks. Those masks contain graphene. It wasn't concluded yet, but graphene is not meant for people to inhale in a consistent or large amount. It somehow ended up that 164 million masks were sent around all throughout Quebec to staff and students. That was a very large problem for us.

All of that could have been avoided if we had looked inward and purchased Canadian masks, which we actually sew. CAPPEM actually invested over $100 million collectively in creating PPE machines and ventilators, etc. If we paid more attention to what we have right now on our own Canadian soil, I feel like we could avoid a lot of these problems.

Mr. Majid Jowhari: Do you think, based on the data you have, that we have the capacity to be able to not only fulfill the demand of Canadians but also be in a position to export?

Can you share some data around that with us?

Mr. Alexander Kung: Absolutely.

One of the companies we partner with in CAPPEM is Canada Masq. Canada Masq is also a very new company right here in Richmond Hill, located minutes from our warehouse. They have the contract for 250 million masks for the entire Government of Ontario. I am helping them in terms of scalability and exposure for their products.

They can manufacture anywhere between three million to five million masks every single week. Anthony, the CEO of Canada Masq, is a wonderful entrepreneur as well. They have plans for expansion to manufacture up to 50 million masks a week. At that capacity, we can definitely export some of our PPE.

Mr. Majid Jowhari: Are you in a position to be able to share the difference in costs? You talked about the quality, but it looks like you're highlighting the fact that, despite the fact that we have sufficient local manufacturing capacity across Canada not only to be able to meet our demand but also to export, we are still at a disadvantage. Can you share some price points around the difference and why the difference is there?

Mr. Alexander Kung: Absolutely.

It all comes down to labour. In terms of the price of the machine and the price of the material, it's all rather the same. Right now we are facing a massive shortage in containers as well. The price point for us to import raw materials is very high, especially from countries that have a manufacturing capacity for mask output, let's say, that's a thousand times more than we have as a small association.

Their labour is 10 times cheaper than Canadian labour. That's one of the only strongest single factors that I can think of, at the moment, that has a direct correlation with why we lose—why, as a group of Canadian PPE manufacturers, we lose most of the time.

Mr. Majid Jowhari: If you could source at least the raw materials at a much more favourable price, then the only issue remaining for us would be the labour. Is that true?

Mr. Alexander Kung: Yes.

Mr. Majid Jowhari: Thank you very much.

I believe that brings me to my five minutes.

Mr. Alexander Kung: Thank you.

The Chair: Thank you very much.

[*Translation*]

Mr. Lemire, you have the floor for two and a half minutes.

Mr. Sébastien Lemire: Thank you, Madam Chair.

I would like to acknowledge Laure Waridel's presence. It's a privilege to have a distinguished person like her at the committee.

In your opinion, would a true green taxation policy create real incentives to invest or divest in order to reduce the ecological footprint of our individual or collective behaviours?

What do you think?

● (1245)

Dr. Laure Waridel: Thank you, Mr. Lemire.

Absolutely, the green taxation is an extraordinary way to bring the market towards eco-friendly choices. Starting with a carbon price is a step in the right direction, but we need to go much further than that if we want to listen to the science and respect our planet's limits with respect to climate and biodiversity.

The green taxation is a way to internalize environmental and social costs, which the market does not currently allow. We are dragging our feet and mortgaging our children's future as a result.

When you go to the grocery store, you will notice that local organic apples cost much more than chemically treated apples imported from Chile, for example. Yet the environmental impact of imported industrially grown apples is much greater than that of local apples.

Climate change is also affecting energy costs. Because of COVID-19, we are now seeing how expensive a health crisis is. We are also seeing the impact of floods and droughts on agriculture.

What I'm urging you all, especially elected officials, to do is to take responsibility, in that the first responsibility of governments is to protect the health and safety of their people.

Right now, the scientific studies are very clear that our inaction will cost human lives and clearly damage the economy. Even the proposals of the World Economic Forum in Davos, which supports traditional neo-liberalism, stress the importance of applying the polluter pays principle and internalizing environmental and social costs.

It is time for Canadians to stop burying our heads in the oil sands, because that is what we are doing by not listening to the science. We are therefore setting up crises that our children will have to face.

I am speaking here today not only as a mother, but also as a scientist. I invite you to read the reports of the Intergovernmental Panel on Climate Change (IPCC), and those of Ouranos, and to focus on the solutions, because there are solutions.

There is resistance to change, but Canada has a duty to be in this game on behalf of many economic players, some of whom are around the table today.

The Chair: Thank you very much.

[*English*]

MP Masse, you have two and a half minutes.

Mr. Brian Masse: Thank you, Madam Chair.

Mr. Kung, you said earlier that “any green solution is a solution”. I thought that was a really appropriate statement for what we're faced with in terms of competition.

You also mentioned labour being an issue. I come from the manufacturing sector. I believe it's actually important for not only our jobs, our economy and our ecosystem in terms of doing better practices but also our sovereignty. I'd like to ask you specifically about our trade agreements and labour practices. The new agreement we have with the United States and Mexico includes labour and environment in the actual agreement. It's not as strong as what I would hope, but it's there for the first time.

Can you comment on that? What I'm concerned about...and I've even heard this from Mexican delegations coming to Ottawa. They're saying they don't want to be undermined by lower wages. They don't want to be undermined by the environment being abused in order to be competitive. They need to be raised up as opposed to being used as an excuse to undercut the competition.

Mr. Alexander Kung: Yes, absolutely.

I wouldn't say I'm using expensive labour as an excuse for losing. I think really—

Mr. Brian Masse: I didn't mean that you said that, just so we're clear. I don't want that to be the perception. It was just an observation outside of that.

Mr. Alexander Kung: Yes.

What I would really suggest is that, when it comes to procurement of PPE, it's very viable and also workable if the Canadian government puts in a made-in-Canada requirement for PPE. We're more than capable of doing this.

The only thing we don't have access to right now is nitrile gloves, which are in very high demand and very short supply because the raw material, latex, is completely monopolized by Thailand and Malaysia. If these procurements and these bids really focus on made-in-Canada products, and companies that bid can actually show proof that we manufacture and do the testing here, then we can start to build up our own economy a little bit better and be allowed to jump-start all of these Canadian businesses that invented....

I'm sorry. That's time. Thank you.

● (1250)

The Chair: We'll now go to MP Poilievre.

You have five minutes.

[*Translation*]

Hon. Pierre Poilievre: Thank you very much.

My question is for those who would like to answer it. It is about green energy.

One of the witnesses said earlier that electricity is cheaper in Quebec than elsewhere, and that is true. Quebec set up Hydro-Québec. In Ontario, the province right next door, the price of electricity is much higher than Quebec sells it for in the United States.

Of course, this is not Quebec's fault. Quebec is willing to sell its electricity to Ontario, but the Ontario government has decided to buy its electricity from wind and solar providers at much higher prices.

We could have bought electricity from our neighbours, Quebec and Manitoba, with zero greenhouse gas emissions, but for some reason we chose to buy it at exorbitant prices, forcing companies like Mr. Sobot's to leave the country to expand elsewhere.

Why do governments pay more for electricity when it's green and cheaper here in Canada?

[*English*]

Dr. Josipa Gordana Petrunic: Thank you very much, MP Poilievre.

With regard to the question, I'm going to speak very briefly on an application side and then leave it to my colleagues on the fuel supply side.

On the application side, it is important to put the fact out that, despite the high electricity prices in Ontario and other jurisdictions in Canada compared with those of our colleagues in the U.S., when you pump that energy as electrons or as hydrogen produced from an electrolyzer through a propulsion system on a bus, a car, a truck or a train, it is always cheaper than is the diesel or natural gas comparison.

The reality is that despite higher than normal prices compared with those of our global competitors, it is important to put the fact out there that, on the manufacturing side and on the transit adoption side, those higher electricity prices are actually not a barrier to adoption. In fact, that relates to the physics of the powertrain. There is no comparison with regard to the efficiency of the electrified powertrains.

It is often positioned as a problem, but in fact it is not a barrier. In many provinces like Manitoba, B.C., Alberta and Quebec, it is substantially, by orders of magnitude, cheaper.

I wanted to add that.

Hon. Pierre Poilievre: Right.

If I may say so, Ontario is producing its electricity by burning natural gas. That's one of the principal sources of electricity in the province. You can simply pass the natural gas combustion from the vehicle on to the electrical generation, but it has the same effect.

We could have avoided that if, instead of spending 1,000% more than we had to in order to buy electricity through solar panels and paying 500% or 600% more in order to buy electricity from windmills, we had simply bought it from emission-free nuclear and emission-free Quebec and Manitoba hydroelectricity.

It's an example of where things have gone wrong to the detriment of the environment and the economy.

Dr. Josipa Gordana Petrunic: If I may, sir, just as a slight fact check on that statement, I understand it is a common assumption that there is a longer tailpipe on electrified vehicles, in particular where there's coal on the grid or natural gas through peaker plants.

In fact, we've completed over 30 mathematical and physics studies across Canada. Given the efficiency of the transfer of energy in the powertrain, the only jurisdiction in Canada where, under very specific circumstances, electrification is slightly more dirty than a diesel equivalent is in the deepest of winter in Edmonton, when the bus is full and going up a hill, which almost never happens.

● (1255)

Hon. Pierre Poilievre: In fairness, that wasn't my question. My question didn't relate to electric vehicles. It related to electrical generation, so I regret that we've gotten so far off track.

Perhaps someone else would like to address the actual question.

The Chair: Unfortunately, Mr. Poilievre, you have about 10 seconds.

I will let whoever wants to jump in....

Hon. Pierre Poilievre: In that case, we've lost the chance to address the actual question, but maybe next time I would ask—

Mr. Brian Masse: What was the question?

Hon. Pierre Poilievre: The question was why we are spending orders of magnitude more on wind and solar electricity when we could have eliminated emissions through the purchase of hydroelectricity and nuclear.

The Chair: Unfortunately, you're way over time.

Very quickly, Mr. Lyman. You have literally 10 seconds or less.

Mr. Robert Lyman: The Ontario government had estimated that it would gain 50,000 jobs. The Fraser Institute estimates that as a result of the Ontario pricing policies the province lost 75,000 jobs.

The Chair: Thank you very much.

Hon. Pierre Poilievre: Let's not do that again.

The Chair: We'll now go to MP Lambropoulos.

You have the floor for five minutes.

Ms. Emmanuella Lambropoulos (Saint-Laurent, Lib.): Thank you, Madam Chair.

Thank you to all our witnesses for being here and for providing the information that you've brought us today.

If I might add, I think Ms. Petrunic's response was brilliant. Thank you for that. I don't think that was a waste of time at all.

My first question would go to Mr. Sobot.

Several times you mentioned your Saint-Laurent plant. I am the member of Parliament for Saint-Laurent.

Mr. Veso Sobot: You are.

Ms. Emmanuella Lambropoulos: I'm glad that we're helping in this transition and in making things safer with regard to transporting oil and gas while it's still around. I know you mentioned that we have to stop scaring companies and investors away by saying we're going to be banning plastics. As you know and has been mentioned on this call several times, it's the single-use plastics that will eventually be banned. What that basically means is plastics that are made up of different kinds of plastic that are not able to be recycled.

As to the reason for the use of these plastics, I know that the ones you find in supermarkets, for example, are to keep freshness. They're plastics that are really used to maintain longer freshness for certain products. I'm sure that different types of plastics that are not recyclable are used for other reasons as well, but I wonder what your take is on finding plastics that are more easily recyclable and that can help us in our plan to make the environment a bit better.

I know you said there is no proof of plastic being toxic. However, we know our fish and our birds eat the plastic, we see it ends up in our water sources and we see it's definitely a huge contributor to the pollution we find all around the world.

Can you comment on that, and then anyone else who would like to raise their hand can comment on it as well?

Mr. Veso Sobot: Emmanuella, thank you so much for the question.

That Saint-Laurent plant is a great plant for us. It's been there since 1983. We appreciate the workforce there, and the innovation that's come out of there.

Our company recycles about 22 million pounds of plastic a year. It goes into products that are sold to Home Depot, Rona, Lowe's and big box stores. It's used for drainage pipes, rainwater leaders and also in the construction sector.

The products we make are long life. Water mains are supposed to last 100 to 200 years. Certainly, ours do, because they don't rust. The other alternatives have a much shorter lifespan.

When we talk about single-use plastics, I totally agree with you. Litter is the issue with single-use plastics, and Environment Canada should deal with that, as such. The provinces have jurisdiction over litter, not the federal government. The federal government should work in coalition with all the provinces to make a better recycling program for all plastics.

We live in a modern economy. Look around you. It is impossible to ban plastics, even though the government has signalled that it is going to ban a certain number of them by using a blunt instrument called CEPA, the Canadian Environmental Protection Act. It needs to change CEPA, so that it can deal with environmental issues without calling for bans. That's the big error made by Environment Canada.

We're currently in a pilot program with Environment Canada. We collect oxygen masks, IV tubing and a couple of other plastic products from five major hospitals in downtown Toronto, and we recycle that material into longer-life products. There are many solutions out there that Canadian companies are providing. There's no need to ban anything.

● (1300)

[*Translation*]

Ms. Emmanuella Lambropoulos: Ms. Waridel, the floor is yours.

Dr. Laure Waridel: Thank you very much for giving me the opportunity to correct Mr. Sobot about the scientific studies that show toxic effects on certain types of plastic. Europe has actually banned phthalates in a number of products because they are known to be toxic and they affect the health of children and babies in particular.

We therefore need to ban certain types of plastic, those that are the most harmful to health. Once again, it is a matter of being informed by science. We must extend the principle of responsibility to producers. It's not just about litter. We must consider the entire life cycle of plastics. Plastic producers must be made responsible for the environmental impact of all their products.

[*English*]

Hon. Pierre Poilievre: I have a point of order, Madam Chair, that deals with the functioning of the meeting. I'm curious how we're going to carry on, how both the witness and the previous member of Parliament are going to carry on talking in the committee without these headsets that are actually partly made of plastic. We all have the same headsets. They are made of plastic.

The Chair: While I appreciate your point of order, it actually isn't a—

Hon. Pierre Poilievre: I'm just curious how we're going to speak in committee when these are banned.

The Chair: MP Poilievre, that is not a point of order. While I appreciate your intervention, that is not a point of order.

That being said, that is our time for today. I'd like to thank all of the witnesses for being here today and for your excellent testimony. For those who wanted to also provide a briefing to the committee, if you can make sure to get it to the clerk, the clerk will make sure to circulate it, in both official languages, to all committee members.

I know, Monsieur Vincent, that you didn't have an opportunity to speak, because of the lack of headsets. If you would like to submit something in writing to the clerk, we'll make sure all members get it.

Thank you to everyone in the room for making today possible.

[*Translation*]

My thanks to the interpreters for their hard work, as usual.

[*English*]

The meeting is adjourned.