HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

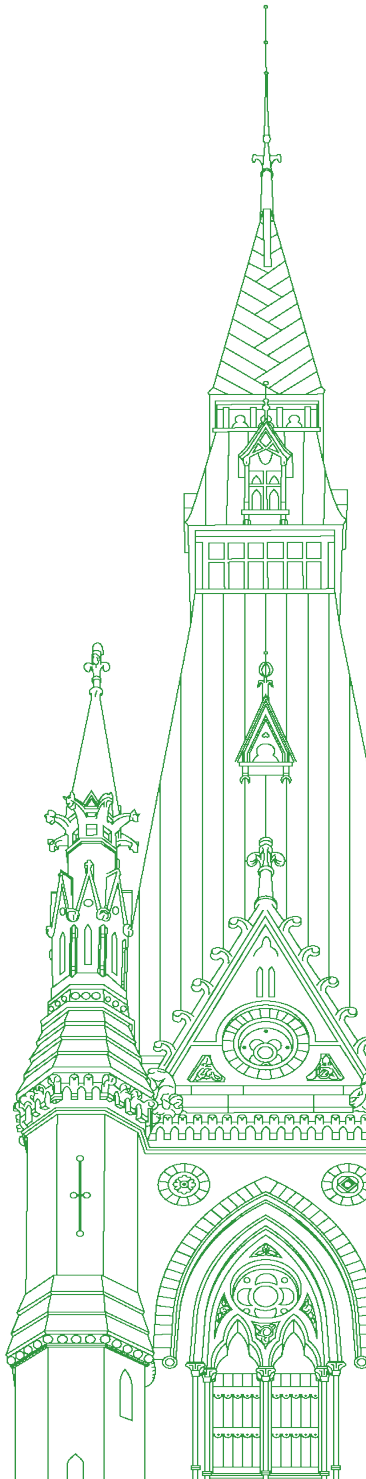
43rd PARLIAMENT, 2nd SESSION

Standing Committee on Environment and Sustainable Development

EVIDENCE

NUMBER 004

Monday, November 2, 2020



Chair: Ms. Yasmin Ratansi

Standing Committee on Environment and Sustainable Development

Monday, November 2, 2020

● (1605)

[*English*]

The Chair (Ms. Yasmin Ratansi (Don Valley East, Lib.)): Welcome to meeting number four of the House of Commons Standing Committee on Environment and Sustainable Development. The committee is meeting today to continue its study of zero-emission vehicles. The meeting is taking place in a hybrid format, pursuant to the House order of September 23, 2020.

Since members are familiar with the hybrid process, I will proceed to welcome the witnesses. We have with us the following witnesses: Travis Allan, vice-president, public affairs and general counsel, AddÉnergie Technologies Inc.; Francis Bradley, president and chief executive officer, Canadian Electricity Association; Brian Kingston, president, Canadian Vehicle Manufacturers' Association; and Joanna Kyriazis, senior policy advisor, Clean Energy Canada.

We have received opening remarks from three of the witnesses, which have been translated and circulated to members. We have one that has not been translated because it arrived late.

Alexandre, which was the one we didn't receive?

The Clerk of the Committee (Mr. Alexandre Roger): It was from the Canadian Electricity Association.

The Chair: We haven't received anything from the Canadian Electricity Association, so I would ask Brian Kingston to speak for at least three minutes to give the committee an idea of your focus so that members can ask appropriate questions.

Mr. Kingston, the floor is yours, and—

[*Translation*]

Ms. Monique Pauzé (Repentigny, BQ): Madam Chair, I have a point of order.

The Chair: What is the reason for your point of order, Ms. Pauzé?

Ms. Monique Pauzé: The meeting started a half-hour late. Does that mean the meeting will be extended by 30 minutes? Votes are commonly held in the House on Mondays, which cuts into the committee's meeting time. I think that's terrible. Are we going to extend the meeting a bit? Before the witnesses start their presentations, I think we should know how much time we're working with.

The Chair: That's a good question, Ms. Pauzé.

[*English*]

It depends on whether or not I get unanimous consent to extend the committee meeting by half an hour. We have faced this situation throughout, whether with a minority or majority government.

Do we have unanimous consent to do that?

Mr. Albas, are you going first?

● (1610)

Mr. Dan Albas (Central Okanagan—Similkameen—Nicola, CPC): No. I just have a quick question before you ask for unanimous consent. If we add the extra half hour, does that mean that we'll hear opening statements from more witnesses?

The Chair: No. You will get the opportunity to ask more questions.

Do I have unanimous consent to extend the meeting? I don't want to waste time. Those who do not agree, please say “nay”.

Thank you. We are in agreement.

Mr. Kingston, the floor is yours. You have five minutes.

The Clerk: Ms. Chair, I'm sorry to interrupt.

Mr. Bradley is the witness from the electricity association, not Mr. Kingston.

The Chair: Okay, sorry. Maybe I was reading it in reverse.

Mr. Bradley.

Mr. Francis Bradley (President and Chief Executive Officer, Canadian Electricity Association): Thank you very much, Madam Chair.

[*Translation*]

Good afternoon to the committee members.

[*English*]

CEA, the Canadian Electricity Association, is the national voice of electricity. Our members operate in every province and territory. The association includes generation, transmission and distribution companies.

Canada's electricity system employs 81,000 Canadians. We contribute $30 billion to Canada's GDP. Indirectly, our sector supports every job and industry in Canada. Electricity is the foundation of the modern economy. It's also at the heart of Canada's transition to low carbon. Over 80% of Canada's electricity generation is already non-emitting, making it one of the cleanest grids in the world. In fact, the Canadian electricity sector has already reduced GHG emissions by more than 40% since 2005.

The availability of clean, reliable power will play an essential role as Canada begins to decarbonize through electrification. Our sector is uniquely positioned to help advance Canada's clean energy future and meet climate commitments in 2030, 2050 and beyond. In fact, CEA released a list of actions for achieving net-zero carbon emissions, which we've provided to the clerk for your reference.

Electrification of vehicles will play an important part in Canada's reaching its climate change targets. Light-duty vehicles represent 12% of Canada's overall GHG emissions, and with focused action we believe that we can reduce that to near zero. But to do so, there are several actions that governments must take. We believe that the government has done a good job thus far in encouraging EV adoption by providing purchase incentives and charging infrastructure. The electricity sector supports these measures wholeheartedly. Electricity companies have been active participants in building charging in and between communities.

Alas, it's not enough to just help people buy EVs and to install more chargers. These might be the exciting visible parts, but we can't forget about the foundations of the system. For EVs, that means modernizing the rules around electricity metering and making sure that the distribution infrastructure can support this growth. Canada's legislation on electricity metering dates from before the Internet, basically since the last time we had a Prime Minister Trudeau. As written now, overly prescriptive acts such as the Electricity and Gas Inspection Act and the Weights and Measures Act stifle innovative metering technology, and in turn they impede the commercial deployment of technologies dependent upon these. Outdated metering legislation holds back further deployment of charging infrastructure in public and in multi-residential dwellings.

We have to ensure that the grid is ready for electric vehicles. It's not so much a question of making sure there's enough electricity. In fact, EV charging offers the opportunity to take advantage of power surpluses overnight and at other peak times, but at the hyperlocal level, an increase in EVs will need to be supported by upgrades to the local distribution infrastructure, such as feeders and transformers. Even a handful of EVs on a single street could require upgrades beyond what is currently in place.

I've talked about light-duty cars and trucks, and while electrification of these vehicles would represent a substantial carbon reduction, they are only part of Canada's transportation sector. Other parts—long distance trucking, marine uses and aviation—seem to require solutions other than batteries, and hydrogen may be a solution for these functions. Canada's electricity sector looks forward to the upcoming release of Canada's hydrogen strategy. Our sector is optimistic about the opportunity of low- or no-carbon hydrogen to reduce emissions. From our perspective, hydrogen made with non-emitting electricity is basically electrification.

Thank you for the opportunity to be with the committee today.

● (1615)

The Chair: Thank you very much.

Committee members, if I didn't mention it, the opening statement by Mr. Bradley, once translated into French, will be sent to you. The rest of the opening remarks are deemed read and public, so they'll be in the committee evidence.

[*See appendix*—Remarks by Travis Allan]

[*See appendix*—Remarks by Brian Kingston]

[*See appendix*—Remarks by Joanna Kyriazis]

The Chair: With that, the first round of questions goes to Mr. Redekopp.

I understand you're sharing your time with Mr. Jeneroux. If that's an incorrect understanding, you can correct me.

You have six minutes, Mr. Redekopp.

Mr. Brad Redekopp (Saskatoon West, CPC): Thank you, Madam Chair.

Thank you to all of the witnesses for being here today and especially for giving us your remarks ahead of time. That's very helpful.

My first question is for AddÉnergie and Mr. Travis Allan.

On Friday of last week, you announced an investment of $53 million in charging stations, which included federal government money from the Business Development Bank of Canada and Export Development Canada.

Could you please let me the total federal contribution out of that $53 million?

Mr. Travis Allan (Vice-President, Public Affairs and General Counsel, AddÉnergie Technologies Inc.): Thank you very much for having us here today.

That is correct. We were very pleased to announce our series-C financing round for our company on Friday. This included both an equity contribution, and a financing round that was led by an investment bank out of Montreal with federal participation. There was also some debt financing from National Bank.

I'm not able to provide the specifics of the EDC and BDC contribution. However, I am able to note that they were a significant part of the investment. We are, frankly, very delighted to have that federal support—

Mr. Brad Redekopp: Sorry for interrupting, but over the years, have you been subsidized by the government in other ways through grants and loans?

Mr. Travis Allan: Yes, federal incentives have played an important role in the development of our market. One of the most notable examples is NRCan, which has provided important support for charging station deployment across Canada through the EVAFID and other programs.

Mr. Brad Redekopp: Has AddÉnergie been able to make a satisfactory profit to this point?

Mr. Travis Allan: AddÉnergie is a private corporation, and does not disclose its financial specifics. However, we have experienced very substantial revenue growth, particularly in the last two years, which has been attractive to a couple of major institutional and government investors.

Mr. Brad Redekopp: In your view, can companies like yours generate satisfactory profits without government subsidies and loans?

Mr. Travis Allan: Yes, absolutely.

We're currently still at an early stage of adopting electric vehicles and charging infrastructure, but there is ample opportunity to develop profitable business models, both on the network deployment of EV charging stations and on the manufacturing of charging stations.

Mr. Brad Redekopp: Mr. Kingston, on your website it says, “An effective carbon pricing policy applicable to the auto sector must...ensure that revenues paid are fully returned to companies for reinvestment in innovation”. In your opinion, does the current federal carbon tax fulfill your organization's goals for carbon pricing policy?

Mr. Brian Kingston (President, Canadian Vehicle Manufacturers' Association): Not completely. There are opportunities to recycle federal carbon tax revenues to companies to put in place effective carbon abatement programs and efficiencies at both manufacturing facilities and other operations. There are good examples of companies investing in that. The more of those funds that get recycled through to a company once they've been paid, the greater the speed of innovation you'll see at a facility to reduce overall emission outputs.

● (1620)

Mr. Brad Redekopp: Madam Chair, I'll turn it over to Mr. Jeneroux.

Mr. Matt Jeneroux (Edmonton Riverbend, CPC): My questions are also for Mr. Kingston.

At our last meeting we were told by the government departments that no internal studies had been done on the feasibility of zero-emission heavy-duty engines.

Has your association done any studies or reviews on this?

Mr. Brian Kingston: Was that on the feasibility of the engines?

Mr. Matt Jeneroux: Yes, the heavy-duty engines.

Mr. Brian Kingston: No, the CVMA has not done a study on those engines.

Mr. Matt Jeneroux: We were also told that there has yet to be any engagement with industry partners on the development of regulations for heavy-duty vehicles despite the call for the creation of a working group that would aim to develop a plan for decarbonization of the trucking industry.

Do you think that a working group with industry would be the best approach for creating regulations for heavy-duty vehicles?

Mr. Brian Kingston: We are always 100% supportive of engagement with industry when that type of regulation is being developed. So yes, absolutely, we would be open to those discussions, and any sort of industry consultation.

Mr. Matt Jeneroux: I take it then, judging by your answer, you haven't yet had any of those conversations.

Mr. Brian Kingston: I'm not aware of that at this point.

Mr. Matt Jeneroux: Zero-emission vehicles start at approximately $40,000, give or take.

Would you agree that the average cost of a zero-emission vehicle would make it difficult for the average Canadian to participate in the government's current program to purchase these vehicles?

Mr. Brian Kingston: Absolutely. That's why consumer incentives are so critically important. Until we reach a point where there's price parity between a zero-emission vehicle and an ICE vehicle—an internal combustion engine—you need consumer incentives to bring the price down so that average Canadians can afford it and see this vehicle as fitting their needs for the same price as the car they would typically buy.

Mr. Matt Jeneroux: To your knowledge, are there any timelines for when more affordable zero-emission vehicles will be available in Canada?

Mr. Brian Kingston: Yes. There have been a number of studies done. Most point to the late 2020s for achieving price parity. That's when you'll see battery technology advancing to a point where the cost is the same.

The Chair: Thank you very much.

Committee members, I was remiss. You got the notice, but I did not let you know that we have scheduled 10 minutes for committee business. At 10 minutes to six, we will go into committee business.

Next is Mr. Francis Scarpaleggia.

Mr. Scarpaleggia, you have six minutes.

Mr. Francis Scarpaleggia (Lac-Saint-Louis, Lib.): Thank you, Madam Chair. I just want to continue with a remark that Mr. Kingston made.

You mentioned a year when battery technology would be equal to...but it wasn't quite clear. You were basically saying that this would be cost-effective by a certain date, but can you explain that a little more? Could you go back to your last statement and elaborate on it?

Mr. Brian Kingston: Absolutely, yes.

A number of studies are looking at the different technology development spectrums and when an electric vehicle that is using battery technology will reach price parity with an ICE vehicle, that is, with a traditional combustion engine. Now, technology can sometimes take leaps and bounds, so it's always difficult to pinpoint exactly when you'll reach that price parity, but a study that was commissioned by ISED and done by an organization called CAR, out of Detroit, put that date in the late 2020s.

Mr. Francis Scarpaleggia: Is 2023 what you said? What was the date?

Mr. Brian Kingston: No. I'm sorry. It's the late 2020s.

Mr. Francis Scarpaleggia: Okay, the late 2020s.

Mr. Brian Kingston: Yes, anywhere between 2025 and 2030. In multiple studies, that seems to be the wheelhouse.

Mr. Francis Scarpaleggia: Right. Basically, what it sounds like is that—and maybe this is obvious to someone in the industry—the cost differential is all because of the battery.

Mr. Brian Kingston: That's correct.

Mr. Francis Scarpaleggia: Okay. That's interesting.

I think it was Mr. Bradley who talked about rules around metering. This is the first time that I've heard this issue raised. It never occurred to me that metering was an issue. You would think that it's pretty objective, that it tells you how much electricity you're using and that's that. Could you elaborate on this issue of needing to "upgrade" the rules around metering? I think that's the way you put it. What are you referring to there?

Mr. Francis Bradley: Certainly. Thank you very much for the opportunity to touch on that.

As I said, this is maybe not as interesting. It's more down in the weeds, but these are the sorts of things that will have to be addressed for us to be effective over the longer term. We essentially have a regulatory regime that was designed for the 1960s. An electric vehicle future in the late 2020s is going to look very different.

We have rules which essentially say that an electric meter is something that we're very used to seeing. They sit on the wall of a building. There are specific rules about what that needs to look like and how it needs to operate. Effectively, we need to look at how we can look at new metering technology and how the vehicles themselves can be recognized potentially as a rolling meter. Also, there are things like multi-dwelling environments, where you're plugging in electric vehicles in garages. That's shared space. We do not have rules in terms of how we can share a meter down in the garage for condos and apartments.

Those are just some of the things. We have provided the clerks some additional information and some very specific changes that we're recommending to both of those pieces of legislation.

● (1625)

Mr. Francis Scarpaleggia: When you mention sharing a meter, do you mean that more than one vehicle plugs into the same outlet and therefore you have to decide how to charge each vehicle owner?

Mr. Francis Bradley: Yes, that's correct. Right now, in theory, for fairness, every electric vehicle is much like every street lamp, which is another separate but very similar issue. Every street lamp has a meter. It is metered. We're in the world of LEDs, where the use of electricity by an LED street lamp is so small that today you can't justify the cost of a meter on each and every one of those, because so much less electricity is being used today than when we originally figured out that technology and began using it.

It's a question of a technology that has moved much faster than the regulations. On the technical end of things, we're going to need to sort out some regulations as well, so that they are not a barrier to further adoption of zero-emission vehicles.

Mr. Francis Scarpaleggia: Is someone working on regulatory reform in this respect?

Mr. Francis Bradley: Oh, yes, absolutely. It's something that we're in active discussions about with the departments, with Measurement Canada. We've developed some very specific recommendations.

As I said, we'll have included those in that information we provided to the clerk.

Mr. Francis Scarpaleggia: It's funny, because it seems so straightforward yet it requires regulation. It's not intuitively easy to understand.

Ms. Kyriazis, I believe I read in your brief that no automotive dealers have electric cars that you can take for a test run.

Is that correct? Is that what I read in your brief?

The Chair: You have 30 seconds to respond.

Ms. Joanna Kyriazis (Senior Policy Advisor, Clean Energy Canada): Yes, according to a study done by Transport Canada earlier this year, the majority of car dealerships across Canada—

Mr. Francis Scarpaleggia: A majority, okay.

Ms. Joanna Kyriazis: Yes. A majority had not a single EV in stock to test drive or purchase.

Mr. Francis Scarpaleggia: Interesting.

Well, I guess my time's up, Madam Chair.

The Chair: Yes. Thank you very much.

We now go to Madame Pauzé.

[*Translation*]

You have six minutes.

Ms. Monique Pauzé: Good afternoon. Thank you to the witnesses for being here.

I would just point something out to Mr. Kingston. A number of key players in the industry, including BloombergNEF, have indicated that they will achieve the much talked-about price parity in 2024, perhaps sooner, with battery prices dropping every year. The late 2020s was the time frame you gave. I think that's a bit far in the future.

I have another comment. You said automakers were providing better purchase incentives than governments were. I actually have an electric vehicle, a Volt, but I don't recall receiving any incentives from the automaker. If such incentives are available, could you please provide a list?

Now I'll get to my questions.

In 2018, one of your members, General Motors, recommended that Canada adopt a system similar to California's, to bring Canada in line with the United States should it introduce a national mandate. Your association's former president, Mr. Nantais, never wanted to put GM's proposal to his members. He was even against Canada doing anything before the U.S. made a decision.

You are the president now. Do you hold the same view as your predecessor?

● (1630)

[*English*]

Mr. Brian Kingston: With respect to our alignment with the U.S., our position is that we must remain totally aligned with the U.S. at all times. This industry is completely integrated throughout North America, and 86% of the vehicles that we produce here in Canada end up in the U.S. We've always cautioned about moving too quickly ahead of the U.S. but staying in lockstep with them, given that our industry is totally integrated into the U.S. market.

With respect to your point about technology, you're absolutely right. There are many different projections around when we will reach price parity. It varies. It varies depending on certain assumptions around the technology advancing. I can't give you a fixed date, but between 2025 and 2030 is generally where most studies seem to be landing. However, I recognize that there are a lot of different perspectives on that.

[*Translation*]

Ms. Monique Pauzé: Yes, absolutely, but I mentioned BloombergNEF, which is a key player, after all.

You mentioned investments in Ontario. Ford recently announced investments in Ontario but did not say whether the vehicles manufactured there would be available to Canadians. Bear in mind that, in 2011, Toyota manufactured RAV4s in Ontario, but they were all sent to California because of the state's rules favouring that type of vehicle. It was a zero-emission RAV4.

Would you be supportive if Canada were to adopt rules similar to California's, to ensure electric vehicles manufactured here were available to consumers here?

[*English*]

Mr. Brian Kingston: With respect to the Ford investment, I can't comment on a company-specific strategy on where they will sell the vehicles. The key for electric vehicles—and this goes to my previous point—is that they will be sold where consumer incentives are high enough to entice more people to purchase them. If Canada were to put in place a more generous set of consumer incentives, both at the federal and provincial level, to bring that price point down, then I guarantee you that we would see much higher adoption here in Canada. In fact, 96% of the sales in Canada have taken place in three provinces where we have EV consumer incentives. That, to me, is the key lever to make sure that Canadians are purchasing those vehicles.

[*Translation*]

Ms. Monique Pauzé: I'd like to jump in there.

Right now, in Canada, most electric vehicles are sold in Quebec and British Columbia, because they incentivize the vehicles through zero-emission vehicle mandates. The other provinces don't have such mandates. I will talk about what happened in Ontario in a moment.

According to the Dunsky report, when Premier Ford eliminated the subsidies for electric vehicles, EV availability dropped by 24%, but sales rose. People still wanted the vehicles, but they were in short supply. Why did that happen?

You could have taken the vehicles that were already in Ontario and sent them to other markets in Canada. Isn't that true?

[*English*]

Mr. Brian Kingston: Well, in Ontario, sales declined quite significantly once that incentive came off. That incentive was extremely powerful. You saw a little bit of an uptick when the federal iZEV program came on, but we're still nowhere close to where we were when the incentive was in place.

I would argue that because the price point of these vehicles remains relatively high, mandates are not what encourage sales. Your average Canadian who is going to purchase a new vehicle doesn't walk into the dealership looking to spend $50,000. When there's an incentive in place, you bring that price point down to a cost that your average Canadian can afford. That's where your see sales increase. To me, incentive is the key.

[*Translation*]

The Chair: Thank you.

Ms. Monique Pauzé: Do I have time for any more questions?

The Chair: No. Your time is up.

[*English*]

We now go to the second round of questioning.

For five minutes, we have Mr. Albas.

● (1635)

Ms. Laurel Collins (Victoria, NDP): I have a point of order.

Mr. Dan Albas: No, I think the NDP—

The Chair: Sorry. I'm so sorry.

Ms. Collins, I must be looking at my watch and going what...?

The six minutes is yours.

Ms. Laurel Collins: Thank you, Madam Chair.

My first question is for Clean Energy Canada, and it's specifically about the quote from Transport Canada in your briefing, which is that “without any further action, Canada could achieve zero-emissions vehicle sales of 4% to 6% of all new light-duty vehicles purchased by 2025 and 5% to 10% by 2030”. That is in no way on track to meeting our target of selling 100% zero-emission vehicles by 2040. It's in no way close to the targets set for each of those years, for 2025 and 2030.

When we spoke with Transport Canada last week, they seemed.... They framed it as that they're making good progress. I’m wondering if you think this is good progress.

In the briefing, you spoke about the need for a kind of package of policies that drives long-term investment and adoption of clean cars. I'm curious, first of all, if you think that's good progress, and then also what you see as the most important actions that the federal government can be taking towards meeting these ZEV targets.

Ms. Joanna Kyriazis: Thanks very much for the question.

I would agree with the interpretation that a 1% increase in EV sales or market share per year isn't particularly good progress and certainly isn't getting us on track to meeting our zero-emission vehicle sales targets by 2025, let alone by 2030 and 2040.

If we look at the jurisdictions within Canada and abroad, including the EU and China, those jurisdictions that are seeing the greatest uptake of zero-emission vehicles are implementing a package of clean car policies that includes purchase incentives and large investments in public charging stations. They are also addressing the supply side of electric vehicles by moving forward with either a zero-emission vehicle standard that requires automakers to sell an increasing percentage of zero-emission vehicles and/or having very ambitious vehicle greenhouse gas emission regulations.

That's the approach the EU is taking. It’s moving forward with very strong vehicle emission standards that essentially require the sale of a certain percentage of zero-emission vehicles for automakers to comply. That's where EV sales are really rising and where the domestic auto sectors are best positioned to compete in the future economy.

Ms. Laurel Collins: Thank you so much.

Mr. Kingston, you said in your brief that the supply of electric vehicles is meeting demand, but we heard from Clean Energy Canada that the majority of car dealerships in the country don't have a single electric car available to even take for a test drive. Even here in B.C., where we have maybe a few more car dealerships with test-driveable cars, Canadians purchasing an electric car are facing three- to six-month-long wait lists before they can drive their car home.

I'm curious about the statement that we are meeting demand for electric vehicles, or that this demand is being met. Can you explain a little why there is so little availability across the country?

● (1640)

Ms. Joanna Kyriazis: Was the question what can we do to ensure that dealerships have more electric vehicles in stock?

Ms. Laurel Collins: Yes, can you explain the lack of availability and what we can do about it.

Ms. Joanna Kyriazis: Of course, automakers tend to prioritize markets that have policies in place requiring the sale of cleaner vehicles and zero-emission vehicles, and so we know that automakers globally are pouring hundreds of billions of dollars into the development of EVs and rolling out new models every year. Again, in looking to the EU as an example, just in the first quarter of 2020 we saw automakers introduce 42 new electric vehicle models. That's more than all of the EV models available in Canada.

The way we can address the supply issue is to move forward with a phased-in zero-emission vehicle standard and other supply-side policies that help automakers decide to make the EVs they are producing here in Canada available to Canadians, including those outside British Columbia and Quebec. Once Canadians have more choice of which EV makes and models are available, and once they see options at various price points, that's going to help electric vehicle uptake.

Ms. Laurel Collins: Great. On this idea of price points, what's Clean Energy Canada's position on the idea of providing incentives to purchase used EVs?

Ms. Joanna Kyriazis: Clean Energy Canada supports this.

In terms of making sure that the iZEV program and the incentive money is best used and reaching a broad range of Canadians, opening up this incentive program to used vehicles is going to get at the majority of Canadians. That's what lower- and middle-income Canadians can afford.

I, for one, can't afford a new vehicle, but that doesn't mean I don't want to go electric. To use our government and taxpayer dollars most prudently and reach the most price-sensitive consumers, for whom those extra few thousand dollars can make the difference in their decision between an ICE vehicle or an EV, pursuing a used vehicle incentive is an effective approach.

The Chair: Thank you very much.

We now go to the second round of questions.

For five minutes, Mr. Albas, you're up.

Mr. Dan Albas: Thank you, Madam Chair.

Obviously, we just heard that supply is a major issue here in Canada. I've seen data from the European Union that says electric registrations have now surpassed diesel ones.

I'd like to ask Ms. Kyriazis, do you have anything to explain this, or do you go back to some of the arguments you just gave to Ms. Collins?

Ms. Joanna Kyriazis: I would just reiterate that the fact that they're moving forward with supply-side policies is very important. We're seeing automakers in Europe.... Honda just last week announced that it would sell only zero-emission vehicles in Europe by 2022. These are fast timelines, and automakers are responding to incentives and regulatory moves in these markets.

Mr. Dan Albas: Thank you for that.

I'd like to ask Mr. Kingston, now that he has joined us again, what needs to be done in his industry, beyond just subsidies. They are obviously stoking demand, but how do we get more supply of products to Canadians?

Mr. Brian Kingston: I offer my apologies for the Internet issues.

With respect to supply, I have good news. When you look at what my three members are doing by way of investing—and this is outlined in the brief—there are literally dozens of new models coming online in the next few years.

In fact, concerning global supply, according to a recent Deloitte study, by 2030, the capacity to build EVs is going to outstrip demand by 14 million units because there are so many new players entering this market, plus the traditional OEMs who are investing billions. I'm confident that supply is not an issue. The key is how we stoke demand.

● (1645)

Mr. Dan Albas: To me, having more units coming online could also drop price, so I guess it's a technology issue. But why is the Canadian market not seen as a priority for new EV supply? Yes, you can quote that world stats are going up, but it seems that Canadians are waiting much longer than our counterparts in other parts of the world.

Mr. Brian Kingston: I would disagree with the analysis that was provided to Transport Canada on supply. When you look at supply of EVs across Canada, it's quite consistent with that of other vehicles that sell in those volumes. If you look at sales since 2015, they've been increasing on average by around 75% to 80%. If supply were such an issue, you wouldn't see sales increasing like that. If a Canadian wants to purchase one of these vehicles, they are available.

Mr. Dan Albas: With all due respect, Mr. Kingston, when I chat with people, I find that some are waiting six weeks or six months and are told they have to put a deposit down and will eventually get a car.

But there's a difference. When you have a family and are making a big investment decision, usually you want to test out a car. That possibility has not been available unless someone is willing to put money down. I recognize that there is some supply coming, but I also would simply say that it seems to me Canadian markets are being underserved by various product offerings.

I would like to ask the Canadian Electricity Association a question.

Mr. Bradley, you've raised a very interesting point. I've always wondered about the B.C. Utilities Commission's process. Their mandate is, if I have this correct—Ms. May can correct me later—“affordable power for generations”. They will literally not hold hearings to create new infrastructure unless there is sufficient demand for it. Usually, that is what has already been lagging. These projects take a long time to develop.

What aspects of those utilities commissions' processes need to be changed? Quite honestly, if you have to be hitting that load target in order to even open up a hearing to have a conversation about building new infrastructure to serve it, it seems to me that the system lags behind the market.

Mr. Francis Bradley: It's an interesting question. Thank you very much for it.

The Chair: You have 40 seconds.

Mr. Francis Bradley: Okay.

I can't comment specifically about the particular cases within B.C. and at the BCUC, but generally with respect to electricity generation, much as I was saying with respect to metering, we have a regulatory system and a regulatory compact that was developed for the industry as it was in the 1960s rather than in 2020. The systems are not flexible, they're not built for innovation, and they're not built to meet the challenges of the future writ large.

Then, with respect to your earlier question about the challenges with getting to test vehicles, we have been partnering with an organization called Plug'n Drive—

The Chair: I am so sorry, but you'll answer him later. He has another turn coming up.

We now go to Mr. Longfield for five minutes.

Mr. Lloyd Longfield (Guelph, Lib.): Thank you, Madam Chair.

I'd like to follow up with Ms. Kyriazis. On that article last week, which I also read with great interest, about how Honda in the U.K. phasing out diesel vehicles in favour of EVs three years ahead of schedule, I'm wondering whether that was due to the regulations on clean fuels. Were there incentives in place in the U.K. or the EU that bumped up volumes? Was there a combination? What's behind that change?

Ms. Joanna Kyriazis: There is a myriad of policies being introduced, as well as investments in various countries in the EU. In part as a response to the coronavirus pandemic, we are seeing countries expand their purchase incentives, investing hundreds of millions of dollars in EV charging networks—

Mr. Lloyd Longfield: Excuse me, is that companies or countries?

Ms. Joanna Kyriazis: Countries.

We're also seeing auto industrial policies and investments as well. Just today, I read that Germany is close to agreeing to a $2 billion package for its auto industry to help it build and prepare for cleaner vehicles and to train staff. France as well, as part of its package, is helping to invest in its auto industry. It wants to become one of the top producers of zero-emission vehicles in the world.

Again, we're seeing policies that focus on the demand and supply sides, and also that help to support these auto companies to capture a piece of the growing global EV market. Canada needs to do the same.

● (1650)

Mr. Lloyd Longfield: Thank you.

Madame Pauzé also mentioned this. When the Ontario government removed their incentive, the dealers in Guelph said to me that it was like turning off a light switch. Immediately, they went from 4% demand to less than 1% demand. The federal government came in and there's been some increase, but there needs to be participation by all levels of government. Would you agree with that?

Ms. Joanna Kyriazis: Yes. Certainly, the steps that provincial governments have taken have been very effective. We support continued action at the provincial level, but at this point, we have an uneven electric vehicle market in Canada and there needs to be some action at the federal level to help address that.

Mr. Lloyd Longfield: Great. Thank you.

Mr. Kingston, welcome back. Technology isn't our friend all of the time. I'm interested in other incentives to drive demand. In British Columbia there's a scrappage program. There could be scrappage programs in other provinces. They're very narrowly focused. Could you comment on how we could try to get the older vehicles off the road, because we know that newer vehicles have better emissions standards and could go a long way towards climate change reductions.

Mr. Brian Kingston: Yes, scrappage programs are critically important. The reason is that only 6% to 7% of vehicles on the road in a year are new. In fact, 35% are 12 years or older with higher GHG emissions. While it's great to focus on ZEV adoptions through things like incentives, ZEVs right now are only 3.2% of new vehicle purchases, amounting to 0.2% of the total fleet. If the government wants to have an impact on fleet-wide emissions, the only way to do that is to put in place a scrappage program that actually makes the overall fleet of millions of vehicles more efficient. That can include both ZEVs and ICE vehicles.

Mr. Lloyd Longfield: A push-pull approach could be a combination of incentives on ZEVs, as well as an incentive to get vehicles off the road.

Mr. Brian Kingston: Exactly.

Mr. Lloyd Longfield: Thank you.

Mr. Bradley, I've got a minute left. Alectra in Guelph has a smart grid that's being introduced where we could sell power to our neighbours using blockchain technology. Having dual meters—I have solar panels on my roof at home—we could have a charging station here. If we have more power than the home needs, we could sell it to our neighbours. Have you seen this as an opportunity through the electrical suppliers?

Mr. Francis Bradley: Yes, absolutely.

That is the future. When I talk about areas of regulation that need to be updated, the electricity regulatory regime that you see across the provinces does not take into account the two-way flow of power, for example. A lot of these are currently running as pilot projects, but again that's the kind of regulation that we need to update for the future to be able to allow this two-way flow of power.

Mr. Lloyd Longfield: That's terrific.

Thank you, all.

I'll go back to you, Madam Chair.

The Chair: Thank you very much for being that efficient.

We now have Madame Pauzé for two and a half minutes.

[*Translation*]

Ms. Monique Pauzé: I asked Mr. Kingston for some documentation, so I want to make sure he provides it. I hope this reminder isn't deducted from my time.

I have two questions, one for Ms. Kyriazis and one for Mr. Allan.

Ms. Kyriazis, Transport Canada officials told us last week that limited supply was a barrier. In your brief, you talk about how the policy should be designed. You give options for implementing the policy: either adopting the California model or introducing a new regulatory measure under the Canadian Environmental Protection Act.

Is one of the options more conducive to achieving the target for the reduction of greenhouse gas emissions?

[*English*]

Ms. Joanna Kyriazis: I believe you're talking about the options of a zero-emission vehicle standard that require a growing portion of zero-emission vehicle sales year after year, or fuel efficiency standards.

Both are very effective policies, and Canada could choose to pursue either or could choose to move forward solely under vehicle emission regulations. That's the approach that—

● (1655)

[*Translation*]

Ms. Monique Pauzé: I see. Thank you. I gather, then, that it's not possible to say which of the two options would be more effective. To determine that, both options could be put to the test.

Mr. Allan, we've been told that people are somewhat afraid of not having access to charging stations. Governments have made considerable investments on that front. In the 2019 budget, $130 million was allocated to Natural Resources Canada and $30 million was allocated in the 2017 budget. Now the Infrastructure Bank has announced $1.5 billion for charging infrastructure.

With all the resources being deployed at this point, is their fear still warranted? In other words, do consumers have reason not to buy an electric vehicle because they don't think there will be enough charging infrastructure?

[*English*]

Mr. Travis Allan: When consumers who are considering whether to buy an EV are surveyed, they will consistently tell you that range anxiety, the concern about the ability to charge, is a major factor in their decision-making.

There have been some very important investments made, particularly by NRCan, that have helped to expand the network of EV charging stations across Canada. There's still a lot more to do.

In Quebec, which is the large province that has the most—

The Chair: We have to cut it very short.

Thank you, we are going over the time.

Madam Collins, you have two and a half minutes, please.

Ms. Laurel Collins: Thank you, Madam Chair.

I want to follow up on the question to Ms. Kyriazis about second-hand vehicle purchases. Fifty percent of Canadians live paycheque to paycheque. The cost of rent, child care and other essentials are rising, for many people, purchasing a new vehicle, whether it's gas or electric, really isn't an option. Even with more government incentives for new purchases, the high cost of these vehicles will still make them out of reach for them.

In addition to what I see as a very concrete step, which would be to put incentives on second-hand vehicles, what other things can we be doing to ensure that electric vehicles aren't just for those who can afford a purchase of tens of thousands of dollars?

Ms. Joanna Kyriazis: Another option that we can take is to modify the current federal rebate program, the iZEV program, and introduce a means test or scale to income such that low- and middle-income Canadians can access a larger incentive to go towards the vehicle. Various jurisdictions have taken this approach.

I would be happy to provide further information, if that's useful.

Ms. Laurel Collins: I would love it if you could send the committee some additional information on that.

Along those lines, we learned last week from the government that it isn't tracking the income of the people who are buying electric vehicles, and I'm curious if either Clean Energy Canada, or perhaps, Mr. Kingston, if the Canadian Vehicle Manufacturers' Association has any data on the income levels of the people who are purchasing and receiving incentives.

Ms. Joanna Kyriazis: Clean Energy's response is, unfortunately, no. Clean Energy Canada does not have that data to share.

Mr. Brian Kingston: Unfortunately, we don't have that data either.

The Chair: Ms. Collins, you have 30 seconds.

Ms. Laurel Collins: This is for Mr. Kingston because I was asking you a question when you had a little bit of technical difficulty.

Here on Vancouver Island, I spoke to someone who was trying to buy an electric vehicle. They were told they would have to wait three months before driving it off the lot. Because the SCRAP-IT program here runs out after a few months in the beginning of the year, they were worried they wouldn't be able to get the incentive.

I'm curious about your comments—

The Chair: I'm so sorry, your time is over.

Thank you very much.

We now go to Monsieur Godin for five minutes, please.

[*Translation*]

Mr. Joël Godin (Portneuf—Jacques-Cartier, CPC): Thank you, Madam Chair.

My question is for Mr. Kingston, whom we lost a moment ago.

I'm quite glad to see you again, Mr. Kingston. Welcome to the other witnesses, as well. I may have questions for them too.

Mr. Kingston, I'd like your opinion on something. If the supply of electric vehicles for sale in British Columbia, Quebec, Ontario and the rest of the provinces increases, will the vehicles sell?

● (1700)

[*English*]

Mr. Brian Kingston: The key really is achieving price parity with ICE vehicles. You could increase the supply of high-end vehicles across Canada that sell at a $50,000 to $70,000 price point. Supply doesn't create demand. It's the other way around. The price point needs to come down due to technology and incentives. Then you'll start to see demand.

One other thing that I haven't mentioned is that there is also a big education component here to address consumer concerns around things like range anxiety, charging and so on. There are multiple levers here, but the key is achieving price parity.

[*Translation*]

Mr. Joël Godin: You represent private companies. The government wants to support development in this area to lower greenhouse gas emissions and achieve the net-zero emissions target by 2050. I think it's a utopian target, but one we have to believe in to achieve more sustainable development. It's quite commendable.

How much support must the government lend private companies before it sees results? Goodness knows that the federal government has been very generous to you in the past, and in some circumstances, rightfully so. Now, where is the tipping point? The ZEV sales target for 2030 is 30%. In the subsequent 10 years, sales have to go up another 70%. Does that mean the industry currently needs investments, programs, incentives and restrictions as far as manufacturers go? Eventually, enough momentum will have built up and the government will be able to withdraw its support.

We have a free market, and I have faith in consumers, so my question is this: Where is the tipping point?

[*English*]

Mr. Brian Kingston: You have framed this exactly correctly. We are in a transition period because the cost of technology is so high. The government's role right now is to help accelerate that transition period by offering incentives to bring that price point down.

We will reach a point where a ZEV is directly comparable to an ICE vehicle. All of the concerns that consumers have around range and charging infrastructure will have been dealt with. At that point there will be no need for any sort of federal incentive because a consumer going to a dealership will have two choices and both will be extremely comparable from features through to price.

We're in this transition period. That's what is critical now and that's why government support is needed.

[*Translation*]

Mr. Joël Godin: I see a problem. Right now, consumers in British Columbia and Quebec—to bring the discussion back to those two provinces—have to wait between three and six months to buy a vehicle. They're all ready to go. Yes, there is an incentive, but I have no doubt that many consumers would buy an electric vehicle even without the incentive. The industry is resistant, and it bothers me that the industry is waiting for government subsidies before it goes any further.

What is your industry prepared to do to really put electric vehicles on Canada's roads?

[*English*]

Mr. Brian Kingston: I would argue that there isn't resistance from industry. I outlined some of the investments that are being made by Ford, General Motors and FCA. We're talking about tens of billions of dollars into electrification programs—investments like we have never seen before. They are fully committed and fully on board.

With respect to wait times—and I wanted to address this earlier—ZEVs still represent 3% of all new vehicle purchases in Canada. If you went to buy any other vehicle that sold in such low volumes, you would also likely face a wait time because these are still very much unique cars that aren't in demand compared to some of the top-selling vehicles in Canada.

With demand so low, we are just not at the point yet where there's going to be a supply at that level. It's really important to note that because it tends to get overlooked at times. It's still 3.2% of total vehicle sales.

The Chair: Thank you very much.

We now go to Mr. Saini for five minutes.

Mr. Raj Saini (Kitchener Centre, Lib.): Thank you, Chair.

Thank you to all of the witnesses for your presentations today.

My question, to begin with, is for Clean Energy Canada.

One of the purposes of this study is to study ZEV standards to increase supply. There's been a lot of discussion about supply. Can you give me a commentary of the knowledge you have? Do you feel that ZEV standards would actually increase supply in Canada?

● (1705)

Ms. Joanna Kyriazis: If we look at the two provinces that have ZEV standards in Canada, we see they are home to 76% of all electric vehicles available for sale. That is a huge difference and, proportionate to the population in those provinces, a much greater supply than should be there. If we look at the U.S., we see that California and 10 other U.S. states have a zero-emission vehicle standard in place. ZEV registrations are four and a half times higher in those states than in other states, even if those other states have electric vehicle targets and other policies in place. Zero-emission vehicle standards work, and—

Mr. Raj Saini: Can you tell me what other countries they work in internationally?

Ms. Joanna Kyriazis: China has its own version of a zero-emission vehicle standard. Obviously, China dominates in terms of EVs. It's attracted 50% of global EV investment, and it accounts for 50% of EV sales.

Mr. Raj Saini: I don't have a lot of time. Just from your commentary, perhaps you could help me frame this. When a country imposes a ZEV standard, the sales go up and the supply goes up. Is that true?

Ms. Joanna Kyriazis: Yes.

Mr. Raj Saini: Okay.

How about research? How important is research in also increasing supply and bringing some sort of vigour to the market? Does that help also?

Ms. Joanna Kyriazis: What sort of research?

Mr. Raj Saini: It's any kind of research, the whole thing involved in a car: R and D, battery, cars, components, whatever.

Ms. Joanna Kyriazis: I see. Yes. So—

Mr. Raj Saini: Have you seen that also? When we invest in R and D, do you also see that increasing supply? We have the ability to increase our own efficiency and present our own products to the market.

Ms. Joanna Kyriazis: Absolutely. Anything that can help bring down the cost of an electric vehicle is going to help, but there's been a lot of investment in R and D, and now it's just ready to bring those existing EV models to Canada.

Mr. Raj Saini: No problem. Thank you very much.

I have a question for Mr. Kingston. Mr. Kingston, you mentioned a lot of R and D in the tens of billions of dollars. Can you tell me where that's happening?

Mr. Brian Kingston: Sure. We have two good examples of assembly investments being made in Canada just recently with respect to the Oakville retooling—

Mr. Raj Saini: Which is fantastic.... Does it represent tens of billions of dollars, though?

Mr. Brian Kingston: No. Those investments that I now mentioned are globally.

Mr. Raj Saini: You've been a bit cautious, if I can use the term lightly, in talking about supply. I think everybody's trying to come at you with a different angle. Let me try a different angle here.

Last year global automakers decided to pour $300 billion into the electric vehicle market. Fifty per cent of that money went to China, and the global automakers came from Germany, China, the U.S., South Korea, Japan, France, India, the U.K. and Sweden. What do they know that we don't?

Mr. Brian Kingston: The Chinese government has put in place all sorts of programs and policies to ensure that consumers purchase vehicles, including incentives, but not—

Mr. Raj Saini: But there are ZEV standards in China, too, that facilitate the sales. If you're going to invest in a country and you're going to produce in that country, there has to be some guarantee you'll have sales in that country.

Mr. Brian Kingston: I would also note that China is the largest vehicle market in the world, so it doesn't really compare with—

Mr. Raj Saini: Can you agree with me that they do have ZEV standards?

Mr. Brian Kingston: I'm actually not aware of how they manage on that particular basis—

Mr. Raj Saini: They do. They do have ZEV standards, so obviously if the ZEV standards were here in Canada, and companies knew that they had to sell a certain percentage of their ZEV cars here, do you not think that would increase the supply automatically?

Mr. Brian Kingston: No, I would challenge that because—

Mr. Raj Saini: But $300 billion is going to China. Fifty per cent of that money is going to China, and the global automakers are from Germany, China, the U.S., South Korea, Japan, France, India, the U.K., and Sweden. Why would they be going to China?

Mr. Brian Kingston: They go to China like any other market that a business operates in where they think they can sell a vehicle. You sell the vehicle where the price point matches the demand and the median income—

Mr. Raj Saini: I agree with you, but also they have ZEV standards.

Mr. Brian Kingston: I'm not aware of the Chinese—

Mr. Raj Saini: They do have ZEV standards. B.C.; Quebec, and 10 states, including California, and also the European Union have ZEV standards. They've made them voluntary, but they're discussing putting in regulations. I'm just curious. When half of the smart money, the $300 billion from global automakers, and I've given you the list of countries.... In order to even specify it more—

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

Now we go to our third round. With five minutes, Mr. Albas, the floor is yours.

● (1710)

Mr. Dan Albas: Thank you again, Madam Chair. I also want to thank our witnesses for being here today.

I would like to go back a little bit to the electricity association. From a bigger perspective, if everyone who wanted an electric vehicle in Canada got one—so supply and demand issues to the side, and everyone woke up and had one—what would the increased electricity demand be?

Mr. Francis Bradley: I don't think anybody's calculated exactly what that increase in demand would be. The challenge, of course, is when that demand would occur and what impact it would have on the system. The challenge is to make sure that we have a smarter grid and smarter systems so that we can, in fact, optimize our networks and charge them off-peak.

Mr. Dan Albas: Yes, because again, Mr. Kingston had noted that the prices are coming down and supply is, hopefully, going to come faster than the 2030 timeline, but can the existing electricity system manage an increased pickup in demand?

Mr. Francis Bradley: Yes, the system broadly can. At a local level, when you're talking about individual feeders, that's where there are challenges at the distribution level. At the same time, we're also looking at greater systems and technologies in place, so that we can manage when we're going to be charging those vehicles. In fact, we can optimize the existing transmission and generation networks if we're able to use the off-peak power that currently, in some cases, results in water being spilled at dams and negative pricing in markets. This actually makes for a far more efficient use of the overall system.

Mr. Dan Albas: Okay, so there are small communities like my community of Summerland, for example, which owns its own electrical infrastructure. Obviously, if there were increased demand and usage, that would have to come from somewhere to modernize to make sure that it's there. Therefore, I take your point that there's a lot more than our simply writing and edict and saying how many cars we want and getting that out tomorrow.

I have one other question for you. Speaking of Summerland, Jai Zachary runs a business, ElectroMotion. He's done a number of presentations about energy in my region. He's said that we lose about 40%, sometimes more, in power transmission, due to heat alone. So, is the infrastructure that we send...? For example, in B.C. we have Site C, which is eventually going to come onto line. That's a very expensive project.

I'm sure I just woke up Elizabeth May again. Sorry, Elizabeth, you were awake the whole time.

The issue is that even if you have clean power, a lot of it's been lost through the old infrastructure that connects cities with this power. Do you have anything to say on that front, in terms of heat loss?

Mr. Francis Bradley: Well, I mean, overall we're looking at upgrading systems throughout the network. We're looking at $350 billion in investment over two decades to make sure that the system we're building for the future will be more efficient and able to meet our requirements in the future.

Yes, technology from the 1950s and 1960s is not as efficient as the technology that we would be building today. That's the first part. The other part is, of course, that yes, demand will increase, but when is that demand going to happen? If we can shift that demand, it means we don't actually have to build as much infrastructure. We can just optimize the systems we have and optimize our existing networks.

Mr. Dan Albas: Even if you updated the line transmission technology to the most modern standard, would there still be a lot of power loss? That, to me, is a question here. The lines, I would imagine, are very expensive to lay.

Mr. Francis Bradley: It's a question of physics, quite frankly, and there are different technologies. You see an increase in use of direct current in long-distance transmission because the line losses are not to the same degree as you would find in AC systems. There are a lot of technological fixes that can occur, but quite simply, it is a matter of the physics of moving electricity over long distances.

Mr. Dan Albas: Okay, so where do you see the biggest issue with our system?

The Chair: Mr. Albas, you have about 15 seconds. The biggest issue, he can answer that later. Thank you very much.

We now go to Monsieur Baker for five minutes, please.

Mr. Yvan Baker (Etobicoke Centre, Lib.): Thank you, Madam Chair.

Thank you to all of the witnesses for being here today.

Mr. Kingston, my first questions are for you. What is the cost differential for the manufacturers, on average, of manufacturing an EV versus a conventional car, assuming that all other features are the same?

● (1715)

Mr. Brian Kingston: I'm sorry, but I can't give you an accurate number on that, just given the variety of models and makes out there.

What I can point you to, though, is that a recent study by McKinsey, which looked at what manufacturers spend on EVs and how that compares to the numbers for other vehicles. On average, a manufacturer is losing around $12,000 on an EV that's sold, because of all the technology costs that go into that vehicle. That is a built-in incentive, if you will, provided by the manufacturers.

Mr. Yvan Baker: Is that $12,000 a loss relative to a conventional vehicle or is that net loss?

Mr. Brian Kingston: That's a net loss.

Mr. Yvan Baker: That's a net unit loss. I assume that includes the amortization of all the R and D and everything else that's gone into the innovation required to develop and build that car. Is that right?

Mr. Brian Kingston: That's right, and I'd be happy to share the study, if it's of interest.

Mr. Yvan Baker: Is that your position, though, that the average profit margin on EVs in Canada is a negative $12,000?

Mr. Brian Kingston: No. That's a global study that looks across all automakers, so I can't give you an accurate number. You could assume it would be in that wheelhouse, but I can't give give you an accurate number.

Mr. Yvan Baker: Okay.

I come have a business background. I used to be with the Boston Consulting Group and have done a lot of work in the auto sector and other sectors. Obviously, as the volume of sales of a product increases, the cost per unit decreases.

If we accept that $12,000 negative—and I'm not saying we do—presumably the profit margins increase substantially if the volume of sales goes up. Let's say the government required that a certain percentage of cars sold in Canada were EVs—say, 25% or 50%—by a certain date? What would that do to those profit margins?

Mr. Brian Kingston: First of all, if you put in place a mandate like that without consumer incentives, it wouldn't actually do anything until the price came down. That's your first challenge. You can't create the demand. You have to have the demand occur naturally, because the price—

Mr. Yvan Baker: Mr. Kingston, I've heard your pitch for incentives.

I guess what I'm trying to get at, though, is that if the profit per vehicle went from a negative—which is what you're asserting it is—to a positive, then wouldn't that mean that the automakers could provide the incentives for the consumers in the form of reduced prices? That's what happens in every other product category, and that's what's happened with your conventional vehicle.

Mr. Brian Kingston: With conventional vehicles, I would just note that dealers are independent businesses. A dealer orders a vehicle on the basis of what's selling on their lot. They're not told by an OEM or a manufacturer what they should be selling in what volumes. A dealer in Medicine Hat is going to have a different mix of vehicles than will a dealer in downtown Toronto, for example.

It's up to that independent business person to determine what the needs are in their community. They would therefore order the vehicles and finance those vehicles, and the intention would be to turn over those vehicles quickly so they would not be carrying a significant financing cost.

It really comes down to an individual dealer's decision on what they carry on their lot.

Mr. Yvan Baker: I understand that. However, if there were a requirement that a certain percentage of the vehicles sold by manufacturers, and therefore retailers and distributors in Canada, be EVs, would that not result in the businesses—both the manufacturers and distributors and the retailers or dealers—then having to, between them, find a way to make the price one at which consumers would be willing to buy those vehicles? Isn't that Economics 101?

Mr. Brian Kingston: Sure. That starts to sound to me like supply management. You incent a supply level, and then you force a certain production, whether or not demand is there.

Mr. Yvan Baker: Okay.

Madam Chair, how much time do I have?

The Chair: You have 40 seconds.

Mr. Yvan Baker: Ms. Kyriazis, can you tell us just briefly in those 40 seconds—and I know that's not enough time—in jurisdictions where countries have required that a certain share of the vehicles sold be EVs or meet certain clean standards, whether we have seen the automakers adjust pricing and/or features to make the vehicles more appealing to consumers?

Ms. Joanna Kyriazis: I think automakers choose a variety of compliance pathways. That could be one. Another is purchasing credits from other automakers. Each automaker chooses what works best for its business model.

I would just like to add, very quickly, that the investment firm UBS announced last week that EVs are going to be as cheap to manufacture as ICE vehicles are by 2024.

● (1720)

The Chair: Thank you very much.

Mr. Yvan Baker: Thank you.

The Chair: We'll now go to Madame Pauzé for two and a half minutes.

[*Translation*]

Ms. Monique Pauzé: Thank you.

I will begin with Mr. Allan and end with Ms. Kyriazis.

Mr. Allan, given Quebec's experience, would you say Quebec's legislative model could be adapted to the rest of Canada?

[*English*]

Mr. Travis Allan: I would agree. Quebec has shown extremely useful leadership both in terms of balancing incentives with a strong and predictable ZEV mandate and, at the same time, encouraging investments in education and infrastructure that have really supported not only urban Quebec residents, but also rural Quebec residents in adopting electric vehicles in proportions roughly equal to their share of population. I think it's an excellent example.

[*Translation*]

Ms. Monique Pauzé: Thank you.

Ms. Kyriazis, in your September brief, you point out that, by adopting a national zero-emission vehicle standard, Canada could achieve its targets without imposing too many requirements on automakers.

I agree that automakers are resistant. Can you talk about the flexibility that would be needed if a standard were adopted and how that would help improve supply?

[*English*]

Ms. Joanna Kyriazis: Absolutely.

The existing zero-emission vehicle standards that are out there, in B.C. and Quebec, for instance, are designed to be flexible. Carmakers can choose to sell a smaller number of higher range electric vehicles to get a higher number of credits. They could choose to sell a higher number of shorter range electric vehicles. They could choose to purchase credits from other automakers who have sold more than their required amounts. They can bank credits for future use. Under the B.C. system, they can bring in used electric vehicles from another jurisdiction. There are a variety of pathways to comply, to ensure this is a flexible, low-cost option to move towards our zero-emission vehicle sales targets.

[*Translation*]

Ms. Monique Pauzé: Thank you.

I am going to come back to Mr. Allan quickly.

The Chair: That is all the time you have.

Ms. Monique Pauzé: How many seconds do I have left?

[*English*]

The Chair: You have 10 seconds.

[*Translation*]

Ms. Monique Pauzé: Do you have any recommendations to speed up the transition?

[*English*]

The Chair: It can be answered later.

Madam Collins, the floor is yours for two and a half minutes.

Ms. Laurel Collins: Thanks so much.

Mr. Kingston, I was explaining how a constituent on Vancouver Island, without the SCRAP-IT program and the other incentives, wouldn't have been interested, but because of the long wait, they didn't end up buying it. I'm curious. When you're thinking about the policies that the federal government needs to bring in on, say, a scrap-it program, what model you would see as really effective?

Mr. Brian Kingston: For a scrappage program, I think the best model would be something that's broad-based to try to get at the 35% of vehicles 12 years old and older. If you look at total fleet emissions, it's those older vehicles that are going to be polluting more and putting out more GHGs than new vehicles. While ZEV adoption is critically important, you need to turn over the vehicle fleet at a faster pace. It currently takes about 20 years to fully turn over the fleet.

A scrappage program should aim at vehicles 12 years old and older and it should give consumers an incentive not just to purchase a ZEV vehicle, but also to purchase a new, efficient ICE vehicle. If you do that, you're still going to see a huge gain in terms of emissions.

Ms. Laurel Collins: Thank you so much, Mr. Kingston. That's great.

The other part of that story is that they really did have a long wait. There was an issue with supply.

Ms. Kyriazis, there seem to be two perspectives here. One is that, really, incentives are the key piece, whereas what I'm hearing from you is really about a broader suite of policies. I'm just curious whether you can respond to some of the things we've heard from Mr. Kingston. Is there anything that you would want to respond to or counteract?

Ms. Joanna Kyriazis: Thanks, Ms. Collins.

In terms of demand, it's hard to isolate whether we're creating demand or forcing demand, but from the surveys and polls we have seen, it's very clear that Canadians want to drive electric vehicles. A survey by Toyota last year found that 52% Canadians think their next car will be electric. A poll that Abacus Data did for Clean Energy Canada found that two-thirds of Canadians want to see electric vehicles as the majority of vehicles being sold in the future, and 50% of those folks wanted to see that shift in the next five years. The interest is there.

The other part of the story here is Canada's auto sector. The future is electric. Wall Street is telling us that with Tesla's being the highest valued carmaker in the world.

● (1725)

The Chair: Wrap it up, please, Ms. Kyriazis.

Ms. Joanna Kyriazis: This is the direction the world is going in. Let's prepare our auto sector to capture that economic benefit.

The Chair: Thank you.

Mr. Redekopp, you have five minutes.

Mr. Brad Redekopp: I want to go back to Mr. Kingston. We were talking about the carbon tax. I believe what you told me was that the current carbon tax doesn't totally match organizations' goals. In your view, what aspects of the current carbon tax need to be changed to align more closely with your organization statement?

Mr. Brian Kingston: The main element is making sure that manufacturers are able to recycle what they pay in carbon taxation back into investment in emissions-reducing projects, just ensuring that there's a “one for one” there so that as carbon revenue comes into the government it doesn't go into general revenues—that they're able to put it back into an operation. For example, if a manufacturer wants to reduce its facilities' emissions by implementing a new energy generation system or something like that, providing that recycling ability would help them reduce their emissions overall. I think it would be pretty powerful.

Mr. Brad Redekopp: Thanks.

Mr. Allan, I asked about profitability in your business, and you seemed rather hesitant to answer that question. I have a question more about the industry in general. Is it possible for companies in your industry to be profitable right now without government grants and loans?

Mr. Travis Allan: The reason I was hesitant is that we're engaged in a major expansion to sell Canadian-made charging stations with clean Canadian aluminum to the United States, so we're undertaking a lot of expenses to grow our North American market share.

For level two charging stations that you'd use at home or commercially at a business to bring people in as your customers, there's already a great business case. Fleets already have a great business case for light-duty vehicle electrification. There are huge opportunities there for private businesses. I think those are very clear, and there's a huge opportunity to be profitable in selling them.

Mr. Brad Redekopp: Are you saying that those are currently profitable businesses, generally speaking?

Mr. Travis Allan: They can be profitable on a transactional basis. It depends whether a company is trying to be in a steady state or is trying to grow. Those stations can definitely have a good ROI for the businesses that invest in them.

Mr. Brad Redekopp: If we're already at that point, is there any need to have any government subsidies and grants for those products?

Mr. Travis Allan: There is a strong argument for incentivizing smart charging, which tends to be slightly more expensive to buy but has the huge opportunity to help people use electricity better at their homes or businesses—going back to some of the things Mr. Bradley said. Smart charging allows you to manage load, so that you're not charging at the times that are not good for the grid. We've actually patented Canadian patents on various smart energy technologies.

Typically, the biggest subsidies are required for the DC fast charging stations that you'd see at a highway or a rest stop; those tend to be the highest cost. Also, for multi-unit dwellings there are significant barriers, so incentives are helping to basically build out that infrastructure.

At a certain point, however, once we get higher levels of EV adoption, I don't think incentives will be required.

Mr. Brad Redekopp: It sounds as though you're saying that for level one and two charging, incentives aren't really that important at the moment, but that it's more for the level three charging that they're needed.

It's my understanding that in the level three world, there is not a standard plug. Is that correct?

Mr. Travis Allan: There are at least three competing standards for DC fast charging.

Just to correct one thing, there are still, I think, many situations in which incentivizing level two can help Canadians feel more comfortable that there are EV charging options.

● (1730)

Mr. Brad Redekopp: Okay, but you said that from a business perspective, the business case is already there without incentives, even on level two.

Mr. Travis Allan: Yes, there can be a strong business case for fleets and also for merchants who are trying to attract people to their businesses. There are in those cases other economic benefits for providing charging services.

Mr. Brad Redekopp: Do you believe your investments through Canada and the U.S. put you in the best position to capitalize on the current standard that you have for the plug on level three chargers and to possibly gain a monopoly there?

Mr. Travis Allan: Our company offers the two major open charging standards for our DCFC charging stations, because different auto makers use different standards. We don't offer the Tesla plug; you'd need to use a converter for it. We'll adapt which charging standards we offer depending upon which one becomes the winner in the market, effectively.

The Chair: We now go to Mr. Schiefke, for five minutes.

[*Translation*]

Mr. Peter Schiefke (Vaudreuil—Soulanges, Lib.): Thank you, Madam Chair.

I am pleased to be here with the three of you this evening. Thank you for taking the time to speak with the committee. This is an issue my community, Vaudreuil—Soulanges, and I care about. I bought an electric vehicle five years ago.

My first question is for the three of you.

Today, do we need to invest in a network of electric vehicle charging stations and subsidize the purchase of electric vehicles, or have we hit a point where enough charging stations are available to Canadians in their communities?

Each of you can take 30 seconds to answer.

[*English*]

Ms. Laurel Collins: On a point of order, Madam Chair, the volume of the English translation is exactly the same as the French. I made out most of it, but I had a hard time making out Mr. Schiefke's question.

The Chair: Mr. Schiefke, would you like to repeat your question in English or in French?

[*Translation*]

Mr. Peter Schiefke: I'll repeat my question in French.

I bought an electric vehicle five years ago. Back then, people worried that the country didn't have enough charging stations. Is that still a worry for people? Today, is EV adoption merely a matter of subsidies and price, or do we still need to invest in both subsidies and charging stations?

Each of you can have 30 seconds to answer.

[*English*]

Mr. Travis Allan: Perhaps I can start, Madam Chair.

We have made important progress, particularly in places like Quebec and B.C., through support from the federal government, and also local utilities like B.C. Hydro, Hydro-Québec, Circuit électrique and private companies, but there are still numerous places in Canada where it is challenging to find the appropriate level of charging, either DC fast charging or level two.

Our view is that for us to really get to a place where Canadians are comfortable, we likely need to double or triple the amount of charging station penetration. Some countries, like Norway, have achieved over 50% sales and adoption. There is still important work to be done to build that up, and build the Canadian charging industry as well.

Mr. Peter Schiefke: We'll go to Mr. Kingston.

Mr. Brian Kingston: It's really three legs of the stool, if you will. There is still a need for additional consumer incentives until we reach price parity. There is a need for more education. Many consumers and Canadians still have questions about EVs, legitimate questions about batteries, charging ranges and even recycling. Those are real questions that need to be addressed. We've been driving ICE vehicles for a very long time, so there's a transition that will have to take place.

The last piece is infrastructure. There will be a need for more infrastructure, particularly if you look at rural regions, where there is some build-out now, but where people drive further ranges and need that capacity.

● (1735)

Mr. Peter Schiefke: Ms. Kyriazis, you're next.

Ms. Joanna Kyriazis: I would agree with Mr. Allan. We are certainly making progress. Range anxiety is perhaps over-exaggerated, given that the majority of Canadians are going to be charging at home overnight. That said, we still have low levels. As of 2019 we have 290 charging stations per one million residents. Compare that with Norway, which has 1,700 charging stations per million residents. Of course, Norway is a very high bar, so I'm not saying that we're going to get there any time soon, but it is very important that we focus on multi-unit residential buildings, because that's where folks don't have access to charging and don't have control over whether or not to install charging. A model building code at the national level, or other policies, should be focused on that.

Mr. Peter Schiefke: Thank you, Ms. Kyriazis.

Mr. Bradley.

Mr. Francis Bradley: Thank you very much.

It of course depends upon where you are in the country. There was mention of the Circuit électrique in Quebec, and in Ontario and British Columbia, but if you are in parts of Newfoundland, for example, depending upon where you are, it is certainly more challenging.

The other part of addressing range anxiety and the overall anxiety that consumers may have is to give them an opportunity to test these vehicles. We partner with an organization called Plug 'N Drive. They have a discovery centre in Toronto, but there are also road shows that actually bring the vehicles out so consumers can test and try these electric vehicles, because, as was noted earlier, this was the challenge with car dealerships. We're trying to give as many people as possible an opportunity to test these vehicles through this third party organization called Plug 'N Drive here in Canada.

Mr. Peter Schiefke: Thank you.

Madam Chair, how much time do I have left?

The Chair: You have zero time.

Mr. Peter Schiefke: That's very sad, Madam Chair.

The Chair: Yes.

Members of the committee, we have had three rounds. I have to stop it, because as I look at the timing, if I go for the fourth round, only the Conservatives and the Liberals would get a chance, and I think that would be unfair to the Bloc.

We have saved half an hour. We need 10 minutes for our committee meeting.

With that, I would like to ask all witnesses if they have last remarks to make. If so, please raise your hands and I can view you. Are there any last remarks from any of the witnesses?

Alexandre, can you see anybody?

The Clerk: Yes. All four of them would like to speak, Madam Chair.

The Chair: I will give two minutes to each. How about that?

Would you like to go first, Mr. Allan?

Mr. Travis Allan: Yes, certainly.

I just want to say that we've spent 10 years building one of the leading charging manufacturers in North America. We make all our stations here in Canada with Canadian aluminum. It has not been an easy path. It is a lot to develop a new industry.

When we got our series-C financing on Friday, I think it was a real confirmation not just that this industry has an opportunity, but also that there is an opportunity to build this industry in Canada. If there's one thing that I would really underline, in addition to the environmental benefits and in benefits of a lower cost of operation and maintenance of EVs for Canadians, I think it's that there is a really important opportunity to make sure that Canada builds a globally recognized centre for excellence in manufacturing in clean transportation. The policies we've been discussing here today are an absolutely critical element of achieving that.

I would like to end by thanking you for taking the time to look into this. It's a very exciting opportunity for us and for Canadians.

Thank you.

The Chair: Thank you.

Madam Kyriazis.

Ms. Joanna Kyriazis: I too want to close with talking about the economic opportunity.

Electric vehicles save Canadians money. On average, they'll save about $2,000 per year because electric vehicles cost less to fuel and maintain than internal combustion engine vehicles.

Economy-wide, zero-emission vehicles present a huge opportunity for Canada. Yes, it would be helping to prepare Canada's auto sector and to position it to compete globally in a world that's transitioning to electric vehicles, but it goes beyond that. We have all of the metals and minerals we need to build electric vehicles here in Canada, and we have a very strong auto parts supply chain that is showcasing its readiness to feed into electric vehicle production. We have world-leading battery researchers here in Canada and highly skilled labour and charging infrastructure providers. Even all the way to the end of life of the supply chain, we're leading in battery recycling start-ups, such as Li-Cycle in Ontario and Seneca in Quebec.

There is a real opportunity here. Canada needs to act fast to put the right policies in place now, or else we will risk missing out to these other countries that are.

● (1740)

The Chair: Thank you very much.

Mr. Bradley.

Mr. Francis Bradley: Thank you for the opportunity.

I mentioned investments earlier. If, as a country, we're going to meet our 2050 goals for reducing GHG emissions, the electricity sector is going to be investing in the order of $1.7 trillion between now and then. To be able to make those investments to build for future needs and to retrofit, we're going to require support from energy regulators. There's a role for the federal government to play in facilitating this support. Beyond EVs, expanding distribution infrastructure will also facilitate other future expanded electricity use, not just electric vehicles. Finally, credits generated through the clean fuel standard could help offset some of these costs. Should local utilities be able to generate credits through EV charging, these revenues could help offset necessary infrastructure upgrades without having to add costs to residential bills.

Thank you very much.

The Chair: Thank you very much.

Mr. Kingston.

Mr. Brian Kingston: Thank you.

First, I want to say thank you, everyone, for the opportunity to be here and answer questions.

I want to conclude with two points.

First, manufacturers are committed to electrification. The billions of dollars in investments would not be made if the manufacturers did not believe they could be selling these vehicles and that we're at a very exciting time where we're going to be building these cars right here in Canada. I wanted to underline that, because it's a critical point.

Second, I want to address the question around mandates. The suggestion that mandates are the reason that sales increase has come up a few times. B.C.'s mandate came into place in July. Sales of ZEVs were already 10% of new vehicle sales. Why? It was because of consumer incentives. In Quebec, there's a mandate, but there's also a consumer incentive. You take away the incentive and the sales go to zero. It doesn't matter if you have 10 EVs at every car dealership. It's a key point. We want to see the sales increase, but we need to get that price point down, and we're committed to working with government to do that.

The Chair: I'd like to thank all of you for being here and for your presentations.

There have been some asks of you to submit things, so the clerk will be sending you emails regarding what the committee members requested.

With that, I will adjourn the meeting, and we will go in camera.

Thank you all, and we will take a break for a minute.

The Clerk: May I chime in?

The Chair: Yes, sure.

The Clerk: I wasn't aware that we were going in camera. If we go in camera, we need new Zoom links and a new password, and we—

The Chair: Oh, no. That's okay, then. We have no problem.

The Clerk: So, we'll just suspend and then come back?

The Chair: Yes.

We will let our witnesses go. Thank you.

[*Translation*]

Mr. Peter Schiefke: Thank you.

[*English*]

The Chair: Committee members, your subcommittee met and the clerk has distributed in both official languages the first report of the subcommittee. As you instructed us, the subcommittee would insert a calendar around the studies. I would like to ask all of you if you've seen the timetable and if are all in agreement with what the subcommittee has proposed.

Normally when I've been a chair on different subcommittees or committees, I have go through their reports point by point so that the clerk knows that you have all agreed to all the recommendations and don't come back and say that you had never agreed.

We have point number one in the subcommittee report: “That, in relation to the Zero Emission Vehicles study, the committee adopt the proposed work plan”. As you have read the rest of recommendations, I'm not going to read the in full because this is in public anyway.

Point number one continues, “with additional witnesses to be added when possible (up to six witnesses per meeting)”. This is our second meeting and if you look at the timetable it says it will take us up to November 30.

Is everyone in agreement? Are there any questions?

Some hon. members: Agreed.

The Chair: Thank you.

The next point is “That the clerk circulates the suggested working plan (“Upcoming ENVI meetings”) for the committee’s consideration”. Then there's “That pursuant to Standing Order 108(2), the committee adopt the motion of Ms. Collins regarding the enforcement of the Canadian Environmental Protection Act, as its next study after the zero-emission vehicles study”.

You have read Ms. Collins' motion. Are there any questions?

Some hon. members: No.

The Chair: Then there's, “That, after this study has been concluded, the committee adopt and undertake the undertake the motion of Mr. Jeneroux, as amended by the subcommittee, regarding Plastics”. You have read the motion. Are there any questions?

Some hon. members: No.

The Chair: Then there's “And that, after this study has been concluded, the committee adopt and undertake a motion from the members of the Liberal Party”.

If you look at it, you have two timetables. One is for one meeting per week. The other is for two meetings per week. One is a reality, the other reflects our optimism. If we get two meetings per week, we would be fortunate to do more studies and get more witnesses and move along the agenda. But at the moment, what it looks like is that on November 4—which is an additional meeting we've all agreed to—we're having the minister come before us for the main estimates. On the 16th we have a briefing with the Commissioner of the Environment and the Auditor General. December 7 is where we plug in Madam Collins' meeting, and hopefully we move forward from there.

Are there any questions?

Mr. Albas.

● (1745)

Mr. Dan Albas: Thank you, Madam Chair.

I just need two clarifications, please. Number one, we obviously had votes today, which changed our meeting somewhat. I assume that we may have votes again on Wednesday. I would just like to make sure that the invitation is quite clear that theminister is invited, but we don't want to have a case where he says, “I was ready at 3:30 but you were all in the House voting”. I would really like to make sure that we do have the minister for an hour.

The Chair: Mr. Albas, the minister votes as well. I have been given assurance that the minister will be here for one hour no matter what. Are you comfortable with that?

Mr. Dan Albas: Even if we start late, he'll be there for an hour with us?

The Chair: Yes.

Mr. Dan Albas: Furthermore, is the deputy minister going to be joining the minister?

The Chair: That I am not sure of.

Mr. Alexandre, is the deputy minister joining?

The Clerk: Yes.

The Chair: Yes, the deputy minister will be there.

Mr. Dan Albas: Okay, that's good because he's an accounting officer so I'm glad to hear that.

[*Translation*]

The Chair: Ms. Pauzé, did you have a question?

Ms. Monique Pauzé: Yes. It's still about the Monday problem. I mentioned this at the beginning. So far, we've always had votes in the House on Mondays, and it cuts into the committee's meeting time.

Is it always going to be like that? Do you have some sort of plan so that we don't lose a half-hour with the witnesses every single time?

[*English*]

The Chair: Madame Pauzé, in a democracy any party can demand a vote. We have to vote; that is our mandate. We have been very consultative and congenial in saying that we would expand it by half an hour. We've had three rounds. The witnesses have been very good. They have submitted their statements and been focused. We've been able to get questions from everyone. I don't think anybody missed any questions. That's going to be our life; that's normal.

Are there any other questions?

● (1750)

[*Translation*]

Ms. Monique Pauzé: I would like to say something.

I am not suggesting that we don't vote. I am saying that we should move the meeting time or alternate with another committee so ours isn't always the one that is penalized, especially given that we haven't met since mid-March.

[*English*]

The Chair: Thank you, but the committee's schedule is adopted by the House, and that's what we have received. For other committees, if it's a Wednesday, there's going to be a vote, and committees on Wednesday get into the same trouble. We will have to live with it. I think we've been very good in asking, “Can we expand it? Can we do this?” We have been congenial. I think we have learned to live with it. It is not a mammoth task. We will play it by ear.

Is there anyone else?

Therefore, I need somebody to move the motion.

Mr. Albas, could you move the motion for the adoption of the subcommittee report?

Mr. Dan Albas: So moved.

The Chair: Thank you. All in favour?

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

Mr. Dan Albas: Madam Chair, just for protocol—and again, there are many different ways to do this, and clearly you had consent there—we should be seeking unanimous consent or a recorded vote for the purposes of these meetings.

The Chair: I would normally do so. Ms. Collins likes unanimous consents. I knew it would be unanimous; nobody was posing any problems. If it isn't, then we would go to a recorded vote. I would have known had you raised you hand, and then it would have been a recorded vote.

Mr. Redekopp, are you raising your hand to say something?

Mr. Brad Redekopp: On the subject of unanimous consent, I put a notice of motion out, quite a simple one, I think, that we have our meetings televised and that you have the ability to waive the requirement if there's an issue with that. I can't imagine anyone would have an issue with this. I was just wondering if we could get unanimous consent to put that motion through today.

The Chair: Our meeting is televised. Can I just look to the clerk and ask him logistics on how this gets televised?

Because we are on Zoom, what happens, Alexandre?

The Clerk: Meetings can be televised at will. Only two committees can meet at the same time and be televised simultaneously. If there are two other high-profile meetings and we also want to televise ours, we might lose our spot. In that case, Madam Chair, you might want to speak with other chairs—or sometimes the whips will decide. If the committee wishes to have the meeting televised each and every time, we can certainly work that in and try to do it as much as possible.

The Chair: Mr. Redekopp, does that sit well with you, that we do it whenever it's available? I don't want our committee to be bumped just because we asked for a televised meeting, and then they say, “Sorry, there's no room here, so go somewhere else”.

Mr. Brad Redekopp: The specific wording in there says that “the Chair in consultation with the Vice-Chairs and Clerk may waive this requirement”. You have control to flip it around and trade with other committees, for sure.

The Chair: That's fair enough.

Is everybody agreed on that?

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

The Chair: Thank you.

Is there anything else?

[*Translation*]

Ms. Monique Pauzé: I have a question.

The Chair: Go ahead.

Ms. Monique Pauzé: You may recall that, last week, I made a comment in connection with the subcommittee's first recommendation. I wanted the witnesses to appear in a different order than what was proposed. It's clear in the first recommendation, but the document we were sent didn't change.

Is the document carved in stone, or will we be getting another one with other suggested groupings?

[*English*]

The Chair: Sorry, can you clarify that. What do mean when you made a submission of witnesses? It says clearly in the subcommittee report that it be six witnesses per meeting, because that was what you had suggested. You wanted your grouping.

The analysts will try their best. They cannot force witnesses to come at a time when we want them to come or to group them. They will try their best. Nobody has changed anything on you. The analysts do know what you had proposed.

Alison, would you like to say anything to this?

● (1755)

Ms. Alison Clegg (Committee Researcher): Yes, we will invite a panel of six for the next meeting.

The Chair: Has Madame Pauzé's list been incorporated?

Ms. Alison Clegg: Definitely, and the themes of infrastructure and work will be included in the panel, but it depends on who is able to appear.

[*Translation*]

The Chair: Thank you.

Ms. Pauzé, you may go ahead.

Ms. Monique Pauzé: The document we recently received is the same as the one we got a few weeks ago. That's why I brought it up.

[*English*]

The Chair: Do you mean the timetable?

[*Translation*]

Ms. Monique Pauzé: No, I'm not talking about the timetable. I'm talking about the table with the panels of witnesses.

[*English*]

The Chair: Ah.

[*Translation*]

Ms. Monique Pauzé: I didn't propose six witnesses. I suggested three, but it's okay.

My proposal to the subcommittee was that the witnesses be grouped together by theme.

[*English*]

The Chair: Yes, we agree, and that's what the analysts will work on. Is there anything else?

Could somebody suggests an adjournment?

Yes, Mr. Schiefke. Do you move to adjourn?

Mr. Peter Schiefke: Yes.

The Chair: The meeting is adjourned.

AddÉnergie Technologies Inc.

Opening Remarks

Standing Committee on Environment and Sustainable Development

Zero-Emission Vehicles

November 2, 2020

Presented by Travis J. Allan, VP Public Affairs and General Counsel

Thank you, Madame Chair, and committee members for this opportunity to contribute to your study of zero emission vehicles.

AddEnergie is a Quebec company that operates the FLO network of electric vehicle (EV) charging stations, provides advanced R&D, software and station operation services out of our head office in Quebec, and is the largest manufacturer of charging stations in Canada, manufacturing at our plant in Shawinigan. In addition to deployments across Canada, we have recently expanded into the United States, with notable deployments in Los Angeles, the Midwest, and New York. This past Friday, we announced the closing of our series C financing round, which will support our further expansion in Canada and the United States.

The transition to a low carbon transportation sector is a journey in which the start and the end points are both relatively clear. For our starting point, we know that while Canada has made important progress on both its climate and light duty ZEV sales targets, more will be required to achieve them. For our end point, we know that Canadians want to enjoy the cost savings and environmental benefits that come along with ZEVs. But, much like on any significant trip, how we make the journey matters a great deal.

Specifically, there is the issue of speed. Passenger internal combustion engine or ICE vehicles have average lifetimes of 13 years, on average. This means that the turnover of our fleet, which matters a great deal to our overall transportation emissions, significantly lags achievement of ZEV sales targets. The sooner we can increase sales numbers of ZEVs as a percentage of total vehicles sold, the sooner we lock in emissions reductions, and avoid locking in emissions from internal combustion engine or ICE vehicles.

There is also the issue of equity. This transition will only be just and sustainable if all Canadians who drive light duty vehicles have access to the benefits of electrification, including lower operating costs and better air quality. The jurisdictions that have achieved the best, most equitable access to electrification are the ones who develop a comprehensive suite of policies and incentives to support electrification, such as Quebec, British Columbia. These include vehicle incentives with some form of price or means-tested cap, ZEV standards to ensure supply of vehicles, education, and comprehensive investments in high-quality charging stations. These regions also invest in greening government fleets and parking lots. In Quebec, for example, Hydro Quebec's Circuit Électrique and companies like AddEnergie, often with support from NRCan, have made a concerted effort to invest in both urban and rural charging infrastructure. In response, the proportion of rural Quebecers adopting ZEVs is almost identical to the rural share of the overall population. BC, again with private sector and utility involvement from BC Hydro and Fortis BC, has also made important progress in this regard. Another important policy is a used vehicle incentive, which can help the majority of Canadians, who purchase on the resale market, enjoy the benefits of ZEVs.

The House of Commons Standing Committee on Environment and Sustainable Development

Zero Emission Vehicles

November 2, 2020

Witness:
Canadian Vehicle Manufacturers' Association
Mr. Brian Kingston, President and CEO
170 Attwell Drive, Suite 400
Toronto, ON M9W 5Z5
416-364-9333
613-513-9626
bkingston@cvma.ca

Madam Chair, committee members, thank you for the invitation to take part in your consultations on Zero Emission Vehicles (ZEV).

The Canadian Vehicle Manufacturers' Association (CVMA) is the industry association representing Canada's leading manufacturers of light and heavy-duty motor vehicles. The CVMA's membership includes Fiat Chrysler Automobiles (FCA) Canada Inc.; Ford Motor Company of Canada, Limited; and General Motors of Canada Company. CVMA members are responsible for the majority of vehicles manufactured in Canada, directly employing over 22,000 Canadians in well-paying, high-skilled jobs.

I would like to make three key points today about zero emission vehicles and the measures that could be taken to incentivize the production and purchase of ZEVs.

1) Ford, FCA and GM are committed to electrification

CVMA members are investing billions of dollars in electrification and are committed to helping the government achieve its ZEV adoption and climate objectives.

FCA is investing over €9 billion in the design, development and production of electrified vehicles. Here in Canada FCA recently committed CAD $1.58 billion with the Windsor plant being retooled to produce electric vehicles.

Ford is investing more than USD $11.5 billion in electric vehicles through 2022. Earlier this month Ford committed CAD $1.8 billion in new investments in Canada to build new battery electric vehicles at the Oakville Assembly Complex.

Between 2020 to 2025 General Motors is allocating more than USD $20 billion of capital and engineering resources to electric and autonomous vehicle programs. GM is well on its way to an all-electric future with a commitment to 20 new electric vehicles by 2023 and plans for additional models beyond that.

2) Vehicle manufactures are responding to ZEV demand

Some have suggested ZEV supply is the reason uptake has not been higher. The evidence shows otherwise. ZEV sales have grown rapidly year-over-year from 2015 to 2019 at an average rate of 72% (see exhibit 1).

Manufacturers are meeting demand to enable this rapid sales growth. With dozens of new models coming to market in the next couple of years, consumers will have access to an even broader range of electric vehicles.

3) ZEV adoption requires a holistic approach

The most effective way to increase ZEV adoption is to bring the cost down for Canadians through consumer incentive programs. 96% of all plug-in vehicle sales in Canada have occurred in three provinces where consumer incentives are or were in place (see exhibit 2). Price parity with ICE vehicles is not expected until later in the decade, incentives are a powerful tool to accelerate the transition.

In addition to consumer incentives, there are two other important levers to boost adoption – charging infrastructure and education. Canada is making remarkable progress on charging infrastructure and we applaud the investments made by government. However, more is required to address consumer concerns with convenience and range anxiety. Education is another driver of ZEV adoption. Consumer concerns persist around range capabilities, charging times, safety and the total cost of ownership that need to be addressed.

Before I conclude, I would like to make one final point about the transportation sector's role in helping Canada achieve its climate objectives.

Light-duty vehicle emissions in Canada are responsible for 12% of total GHG emissions. Thanks to constant innovations from automakers, Canada's **new** light duty vehicle emissions have declined by 26% since 2005 and are on track to achieve the 30% Paris Agreement target (see exhibit 3).

While ZEV adoption is clearly an important tool in Canada's efforts to meet its climate reduction goals, it won't be sufficient on its own. Other efforts should be considered to lower overall fleet emissions. Fully 35% (approximately 10 million vehicles) of light-duty vehicles on the road are 12 years old or older, contributing many times more GHGs than new vehicles.

New vehicles represent 6-7% of vehicles on the road each year, and of that only 3.2% of new vehicles purchases are of ZEVs (0.2% of the total fleet). Increasing the proportion of ZEVs in new vehicle purchases alone will not have a significant impact on **total** fleet.

This is why we recommend a more comprehensive approach to emissions reductions that includes things such as a scrappage program. A vehicle scrappage program would help to get older vehicles off the road and reduce overall emissions from the 35% of the fleet of higher polluting vehicles rather than only focusing on the 7% portion of the fleet that represent new low GHG emitting vehicles.

I look forward to your questions. Thank you.

Exhibit 1

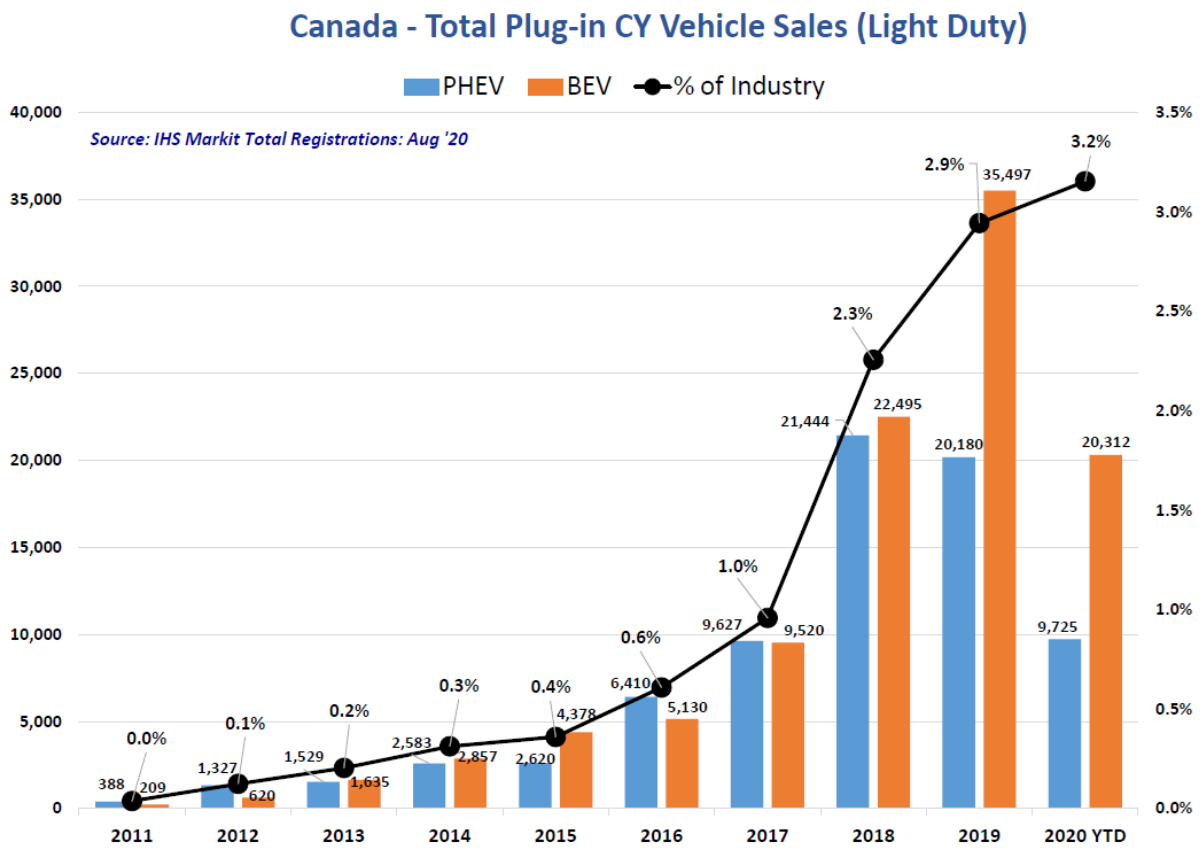

Canada - Total Plug-in CY Vehicle Sales (Light Duty)
PHEV
BEV
% of Industry
Source: IHS Markit Total Registrations: Aug '20
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
3.5%
3.0%
2.5%
2.0%
1.5%
1.0%
0.5%
0.0%
388
209
0.0%
1,327
620
0.1%
1,529
1,635
0.2%
2,583
2,857
0.3%
2,620
4,378
0.4%
6,410
5,130
0.6%
9,627
9,520
1.0%
21,444
22,495
2.3%
20,180
35,497
2.9%
9,725
20,312
3.2%
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020 YTD

Exhibit 2

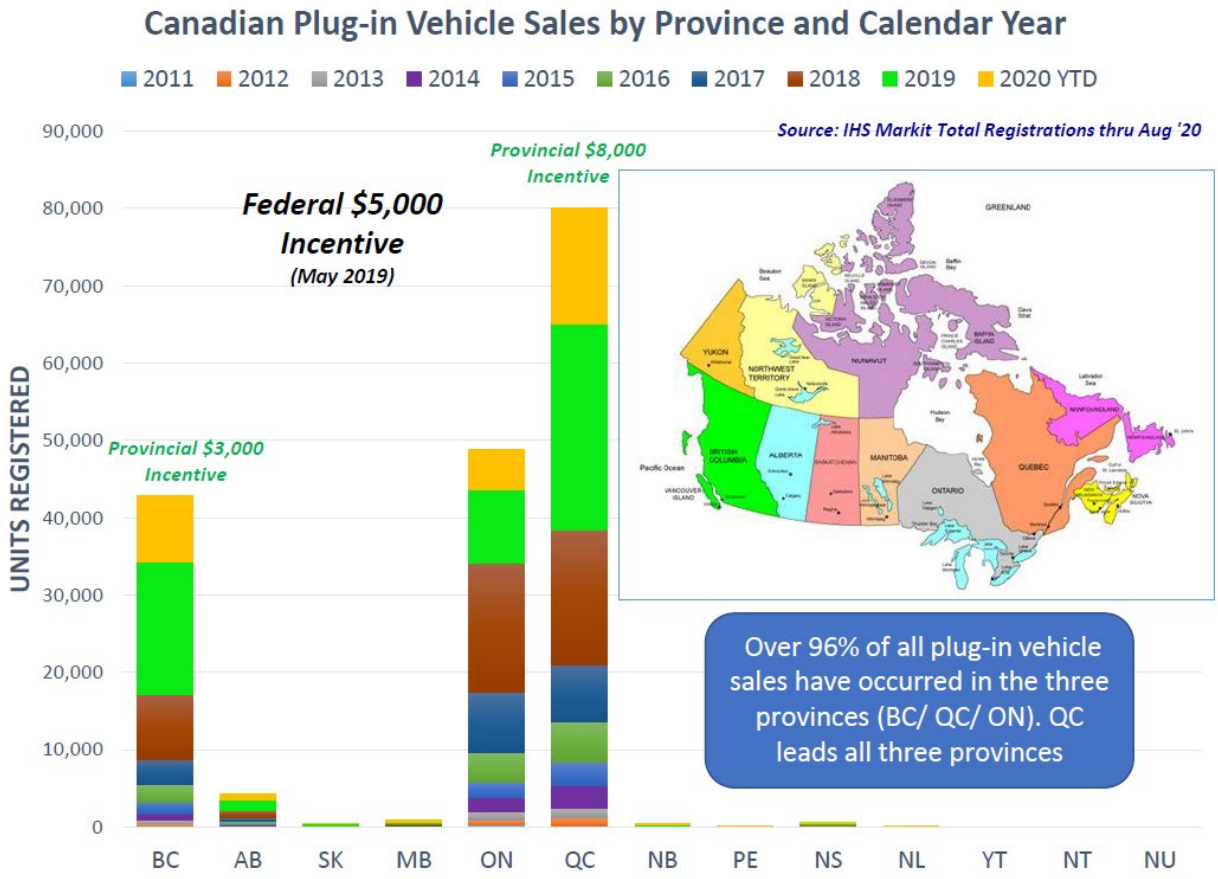
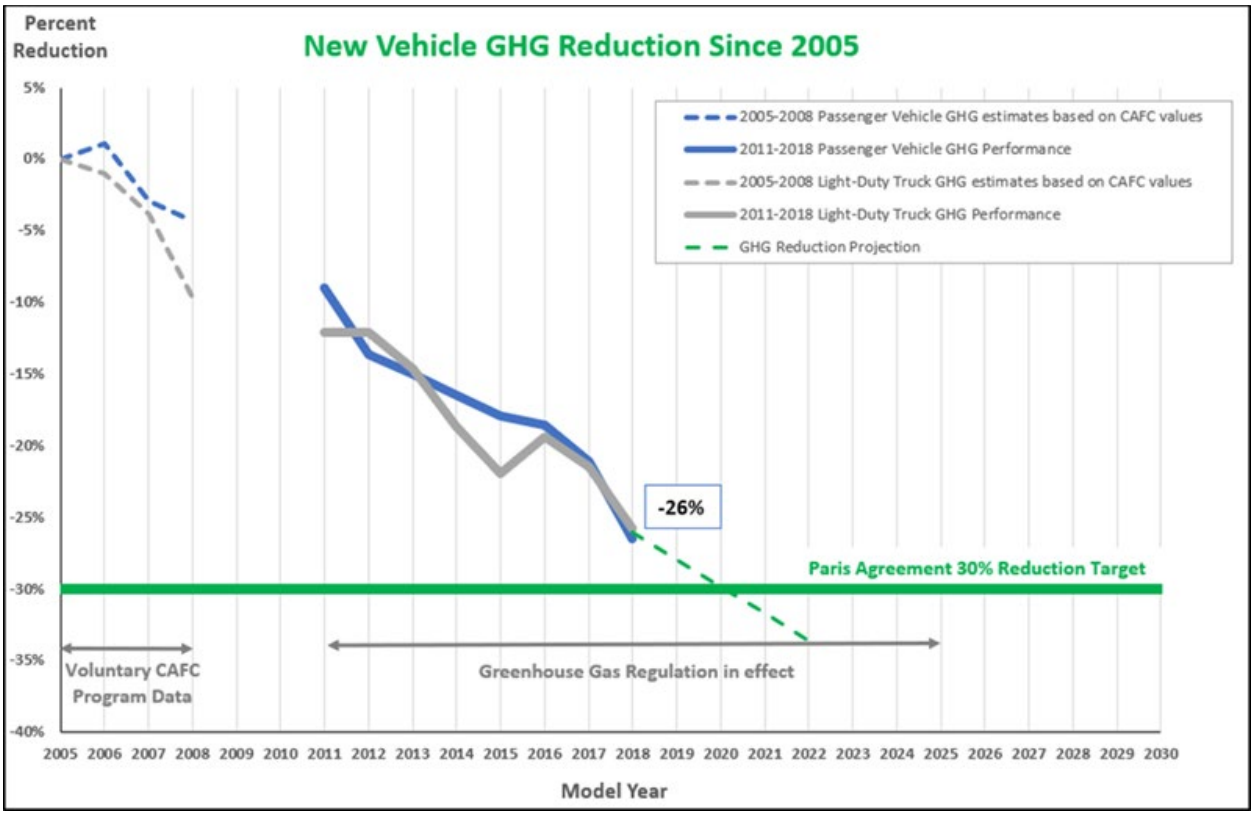

Canadian Plug-in Vehicle Sales by Province and Calendar Year
2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 YTD
Source: IHS Markit Total Registrations thru Aug '20
UNITS REGISTERED
90,000
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Provincial $8,000 Incentive
Federal $5,000 Incentive
(May 2019)
Provincial $3,000 Incentive
BC AB SK MB ON QC NB PE NS NL YT NT NU
GREENLAND
YUKON
NORTHWEST TERRITORY
NUNAVUT
BRITISH COLUMBIA
ALBERTA
MANITOBA
ONTARIO
QUEBEC
NEWFOUNDLAND
Pacific Ocean
Over 96% of all plug-in vehicle sales have occurred in the three provinces (BC/ QC/ ON). QC leads all three provinces

Exhibit 3


Percent Reduction
New Vehicle GHG Reduction Since 2005
5%
0%
-5%
-10%
-15%
-20%
-25%
-30%
-35%
-40%
2005-2008 Passenger Vehicle GHG estimates based on CAFC values
2011-2018 Passenger Vehicle GHG Performance
2005-2008 Light-Duty Truck GHG estimates based on CAFC values
2011-2018 Light-Duty Truck GHG Performance
GHG Reduction Projection
-26%
Paris Agreement 30% Reduction Target
Voluntary CAFC Program Data
Greenhouse Gas Regulation in effect
2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030
Model Year

Finally, there is the issue of economic benefit. AddEnergie has been working to help transition consumers to ZEVs for over a decade, starting in Quebec, expanding throughout Canada, and now increasingly exporting our expertise and high-quality network to our southern neighbours. Our experience has been consistent: we see the most adoption, and the most innovation and economic benefit in regions that adopt a comprehensive suite of policies that supports ZEV adoption.

The major question is not whether economic benefits will occur: they will. From the development of intellectual property, to manufacturing, supply chain opportunities for assemblers, parts and batteries, to upstream supply of minerals, metals and petroleum products, we are at a special moment in history in which a technological change will create significant opportunities. Canada can be a leader in many parts of the supply chain, but if we don't act quickly and decisively, we risk missing out.

The case of Quebec is again instructive. The province has been a leader in advancing complementary policies, including a ZEV standard, to support vehicle purchase and charging station installation, and it has also been a leader in greening its own government fleets. The result has been high and equitable ZEV sales, growing charging station deployment, and the development of an increasing number of companies, like AddEnergie, which are innovating and building great products and services for domestic consumption and export.

We believe that Canada can help build upon these gains at a national level, by renewing funding for its existing incentives for vehicles and charging infrastructure, greening its own fleets, expanding education and adding a ZEV standard, which will clearly signal to the world and to Canada's business community that we are serious about this transition, and that there will be a market for the clean transportation investments necessary to create jobs and help achieve our environmental commitments.

Thank you for inviting me to speak at this committee and I look forward to responding to any questions you may have.

Good Afternoon Madam Chair and Members of the Committee.

My name is Joanna Kyriazis and I am a Senior Policy Advisor for Clean Energy Canada, a climate and clean energy think tank at Simon Fraser University.

Today I'm here to talk to you about Canada's car conundrum.

According to the International Energy Agency, Canadians drive the largest, most polluting cars in the world. Literally, when it comes to tailpipe emissions, we take the global top spot. And, over the past 20 years, carbon pollution from transportation has continued to grow— by almost a third.

At the same time, Canada's vehicle manufacturing—cars, trucks and buses—fell significantly, with annual production dropping by more than 1 million vehicles per year. Once a top five vehicle manufacturer, now Canada doesn't even crack the top ten.

Vehicle pollution went up and vehicle manufacturing went down. It's a bad news story for both our environment and our economy.

While there are various causes of both these challenges, there's a single solution to overcome them: zero emission vehicles. We need to get more Canadians in clean cars and we need to build more of those cars here.

As more EVs hit the market, Canadian consumers and businesses are increasingly plugging into the opportunity to save thousands of dollars per year on fuel and maintenance, while also cutting their carbon pollution. A March 2019 poll by Abacus Data and Clean Energy Canada, found that two-thirds of Canadians want EVs to become the majority of vehicles sold in Canada, and about half of them would like to see this shift happen in five years or less. But with electric vehicles only making up 3% of new car sales today, more needs to be done to achieve the federal government's EV sales ambitions of 10% sales by 2025, 30% by 2030 and 100% by 2040.

That includes ensuring that those Canadians who want to choose electric can find a car to buy. According to a study conducted for Transport Canada earlier this year, the majority of car dealerships in the country don't have a single electric car available to test drive or purchase. For those Canadians who still opted to buy electric, many faced a three to six month waitlist before they could drive their new car home.

To make matters worse, the picture is starkly different depending on where in Canada you live, as EV supply is unevenly distributed across the country. Potential buyers in B.C. or Quebec— the two provinces with EV policies in place— have access to more electric cars and

a greater range of models. They are home to the vast majority of Canada's new EV inventory, leaving the rest of Canada to fight over what remains.

Electric versions of some of Canada's top-selling vehicles are coming to market in the next two years— the Toyota RAV4, the Ford F-150, the Jeep Wrangler. But because automakers prioritize EV sales in markets like the EU and China, which have stronger EV policies in place, it's unclear whether those vehicles will be available for Canadians to buy here.

What does all of this tell us? Canadians are open to going electric, but they need more choice.

Yes, the coronavirus pandemic has created economic uncertainty and caused many experts to predict that the transition to EVs would slow. But instead, we've seen the opposite: countries around the world have used this opportunity to forge ahead.

Take the E.U., for instance. European leaders maintained strict vehicle emission standards, despite the pandemic. Countries like Germany, France, Spain, and the U.K. have also introduced new purchase subsidies, tax breaks, and charging infrastructure investments as part of their recovery package to accelerate the transition to EVs. As a result, EV sales soared and European-based auto manufacturers have rolled out an unprecedented number of EV models this year— 42 models in the first quarter of 2020 alone. McKinsey forecasts that EV market share in the EU will be greater than pre-pandemic projections.

In Canada we have lacked sufficient national effort to harness the opportunity that EVs offer, both in the fight against climate change and the fight to save— let alone grow— our auto sector. While Canada now has a national EV rebate program, a slowly growing network of charging stations, and a couple of promising EV production deals, we have vehicle pollution standards that are getting weaker instead of stronger and zero emission vehicle sales targets that are aspirational when they could be law. If Canada is serious about reducing transportation emissions and building the cars of tomorrow, we need a package of policies that drive long-term investment in and adoption of clean cars.

This clean cars policy package must address both supply and demand-side barriers to EV uptake, while also ensuring Canada's auto sector captures the economic benefits of the domestic and global shift to EVs. Consumer incentives that reach more Canadians and the faster build-out of EV charging stations will continue to stimulate demand. A zero emission vehicle standard and stricter vehicle pollution regulations will secure EV supply. These policies can be paired with an innovative Auto Sector industrial strategy that leverages our automotive heritage, our high-skilled workforce, and our metal and mineral resources.

Done right, Canada can overcome its car conundrum and achieve multiple goals: cutting transportation pollution, giving Canadians better access to the cars they want, and retooling our auto sector to compete in the 21st century.

Thank you for the invitation to speak today. I look forward to your questions.

Published under the authority of the Speaker of the House of Commons

SPEAKER'S PERMISSION

The proceedings of the House of Commons and its committees are hereby made available to provide greater public access. The parliamentary privilege of the House of Commons to control the publication and broadcast of the proceedings of the House of Commons and its committees is nonetheless reserved. All copyrights therein are also reserved.

Reproduction of the proceedings of the House of Commons and its committees, in whole or in part and in any medium, is hereby permitted provided that the reproduction is accurate and is not presented as official. This permission does not extend to reproduction, distribution or use for commercial purpose of financial gain. Reproduction or use outside this permission or without authorization may be treated as copyright infringement in accordance with the Copyright Act. Authorization may be obtained on written application to the Office of the Speaker of the House of Commons.

Reproduction in accordance with this permission does not constitute publication under the authority of the House of Commons. The absolute privilege that applies to the proceedings of the House of Commons does not extend to these permitted reproductions. Where a reproduction includes briefs to a committee of the House of Commons, authorization for reproduction may be required from the authors in accordance with the Copyright Act.

Nothing in this permission abrogates or derogates from the privileges, powers, immunities and rights of the House of Commons and its committees. For greater certainty, this permission does not affect the prohibition against impeaching or questioning the proceedings of the House of Commons in courts or otherwise. The House of Commons retains the right and privilege to find users in contempt of Parliament if a reproduction or use is not in accordance with this permission.

Also available on the House of Commons website at the following address: https://www.ourcommons.ca

Publié en conformité de l'autorité du Président de la Chambre des communes

PERMISSION DU PRÉSIDENT

Les délibérations de la Chambre des communes et de ses comités sont mises à la disposition du public pour mieux le renseigner. La Chambre conserve néanmoins son privilège parlementaire de contrôler la publication et la diffusion des délibérations et elle possède tous les droits d'auteur sur celles-ci.

Il est permis de reproduire les délibérations de la Chambre et de ses comités, en tout ou en partie, sur n'importe quel support, pourvu que la reproduction soit exacte et qu'elle ne soit pas présentée comme version officielle. Il n'est toutefois pas permis de reproduire, de distribuer ou d'utiliser les délibérations à des fins commerciales visant la réalisation d'un profit financier. Toute reproduction ou utilisation non permise ou non formellement autorisée peut être considérée comme une violation du droit d'auteur aux termes de la Loi sur le droit d'auteur. Une autorisation formelle peut être obtenue sur présentation d'une demande écrite au Bureau du Président de la Chambre des communes.

La reproduction conforme à la présente permission ne constitue pas une publication sous l'autorité de la Chambre. Le privilège absolu qui s'applique aux délibérations de la Chambre ne s'étend pas aux reproductions permises. Lorsqu'une reproduction comprend des mémoires présentés à un comité de la Chambre, il peut être nécessaire d'obtenir de leurs auteurs l'autorisation de les reproduire, conformément à la Loi sur le droit d'auteur.

La présente permission ne porte pas atteinte aux privilèges, pouvoirs, immunités et droits de la Chambre et de ses comités. Il est entendu que cette permission ne touche pas l'interdiction de contester ou de mettre en cause les délibérations de la Chambre devant les tribunaux ou autrement. La Chambre conserve le droit et le privilège de déclarer l'utilisateur coupable d'outrage au Parlement lorsque la reproduction ou l'utilisation n'est pas conforme à la présente permission.

Aussi disponible sur le site Web de la Chambre des communes à l'adresse suivante : https://www.noscommunes.ca