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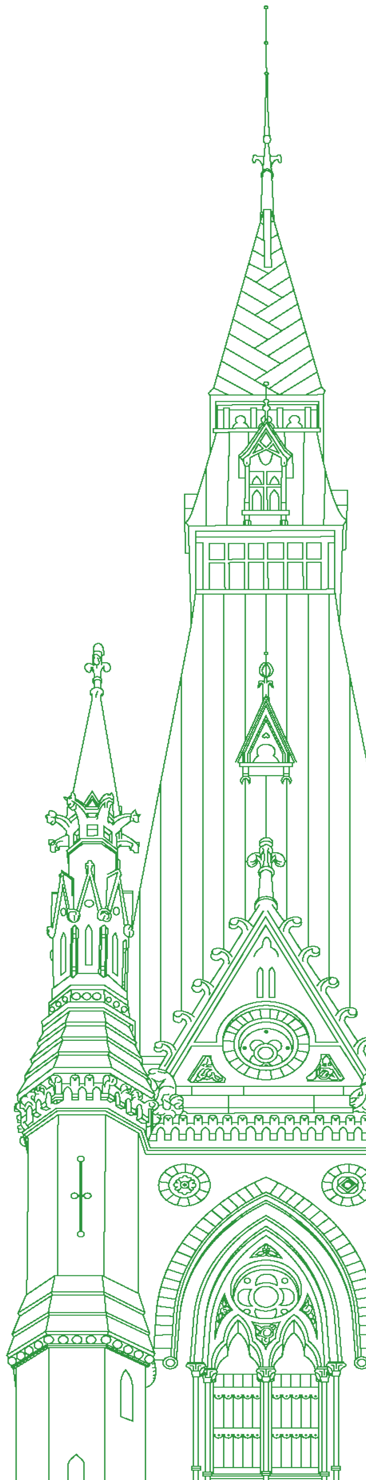

Chair: Mr. Joël Lightbound

# Standing Committee on Industry and Technology

**Thursday, October 5, 2023**

● (1555)

[*Translation*]

**The Chair (Mr. Joël Lightbound (Louis-Hébert, Lib.)):** I call this meeting to order. Welcome everyone to meeting No. 88 of the House of Commons Standing Committee on Industry and Technology.

Today's meeting is taking place in a hybrid format, and I offer my greetings to our colleagues who are joining us virtually.

Pursuant to the motion adopted on September 26, today we welcome the Parliamentary Budget Officer to address the report, “Break-even Analysis of Production Subsidies for Stellantis-LGES and Volkswagen”.

I'd like to welcome Mr. Giroux, Parliamentary Budget Officer, who is accompanied today by Chris Matier, director general of economic and fiscal analysis, and Jill Giswold, senior analyst. We're sorry we had to cancel Tuesday's meeting. It was the circumstances of parliamentary life that forced us to, but we're delighted to be reunited with our guests today.

Before we go to the witnesses, because I hear the bells ringing, I need unanimous consent from the committee to continue the meeting until five minutes before the vote, if that's okay with everyone. I thought the bells were supposed to ring for 30 minutes, but I've checked, and it's only 15 minutes.

Do I have unanimous consent from committee members to continue the meeting at least until the end of Mr. Giroux's opening remarks?

**Some hon. members:** Agreed.

**The Chair:** Go ahead, Mr. Giroux.

**Mr. Yves Giroux (Parliamentary Budget Officer, Office of the Parliamentary Budget Officer):** Thank you, Mr. Chair.

Good afternoon, members of the committee.

Thank you for the invitation to appear before you today to discuss our report, “Break-even Analysis of Production Subsidies for Stellantis-LGES and Volkswagen”.

With me today I have Chris Matier, director general, and Jill Giswold, lead analyst on the report.

Our report has two objectives. The first, which aligns with my mandate to promote greater budget transparency and accountability, is to detail the federal government's break-even analysis of the $13.2 billion production subsidy for Volkswagen announced in April. At that time, the Prime Minister and the Minister of Innovation, Science and Industry emphasized a break-even timeline of less than five years. However, the supporting analysis was not published. Our report bridges that information gap by explaining how the government estimated that timeline.

Furthermore, in July, the federal government and the Government of Ontario announced production subsidies for Stellantis-LGES of up to $15 billion, although neither government has announced a break-even timeline. This brings us to the report's second objective, which is to provide an independent break-even analysis of the $28.2 billion in combined production subsidies for Stellantis-LGES and Volkswagen.

We estimated that federal and provincial government revenues generated from the electric vehicle battery manufacturing plants over the period of 2024 to 2043 would be equal to the total amount of production subsidies. This implies a break-even timeline of 20 years, which is significantly longer than the government's estimated payback within five years for Volkswagen.

To arrive at this estimate, we used results from the same study—“Canada's New Economic Engine"—that Innovation, Science and Economic Development used to determine its break-even timeline. In preparing our analysis, we consulted with ISED and Finance Canada officials.

[*English*]

In addition, in June we reached out to the organizations that published the study—Clean Energy Canada and the Trillium Network for Advanced Manufacturing—and provided them with technical questions and data requests. Unfortunately, in August Trillium informed us that they were not in a position to answer our questions and indicated that they could potentially pick up the conversation in October if we were interested. Despite their response, we were confident in our understanding of their study and results in order to complete our analysis.

Contrary to what some have suggested, our estimated 20-year break-even timeline captures the direct, indirect and induced economic impacts that stem from the battery cell and module manufacturing nodes of the EV supply chain in the Trillium study. These are the supply chain nodes to which the Stellantis-LGES and Volkswagen production subsidies are tied.

In contrast to the federal government's break-even estimate, we did not include additional investments and the assumed production increases in other nodes of the EV supply chain of the Trillium study. In our view, the assumptions and modelling underlying the federal government's estimate significantly overstate the economic and fiscal impacts of the production subsidies, resulting in an optimistic break-even timeline.

First, there is uncertainty surrounding the future geographic location of new investments and production related to the other nodes of the EV supply chain. Given the highly integrated nature of the North American auto industry and the global nature of the automotive industry, it's not reasonable to assume that all new investments in the other nodes of the supply chain will automatically take place in Canada.

Second, the modelling used by the Trillium Network was based on an input-output framework. As we noted in our report, a key limitation of this framework is that there are no supply constraints. For example, in such a framework there is no scarcity or reallocation of labour, so every new job is a net gain to the economy. However, since supply constraints do exist, resources from other sectors and industries would have to shift to meet increased demand across the EV supply chain.

Therefore, given the uncertainty related to the future location of the EV supply chain and to the incrementality of the economic and fiscal impacts, we incorporated the production and spinoffs related to the cell and module manufacturing nodes in the Trillium study, accounting for the production schedules provided by Stellantis-LGES and Volkswagen.

That said, even our analysis included several optimistic assumptions. For example, we assumed that both plants would continue to operate at full production beyond 2032, when the production subsidies will be eliminated. We also assumed that government revenue yields related to cell and module manufacturing would increase significantly beyond 2030.

All in all, it is certainly possible that the break-even timeline for the $28.2 billion in production subsidies for Stellantis-LGES and Volkswagen exceeds our estimate of 20 years.

We would be pleased to respond to your questions. Thank you.

● (1600)

[*Translation*]

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

There are 7 minutes and 22 seconds left before the vote. Do I still have the consent of the committee members to do a first round of questions? I understand that everyone here is going to vote electronically.

I think Mr. Perkins will begin the first round.

[*English*]

**Mr. Brad Vis (Mission—Matsqui—Fraser Canyon, CPC):** I'm sorry, Mr. Chair. Before we begin, are you allowed to be in the House of Commons in a committee meeting?

**The Chair:** I'm not entirely sure because—

**Mr. Rick Perkins (South Shore—St. Margarets, CPC):** Mr. Gaheer is actually sitting in the House.

**The Chair:** Yes, but there is a vote right now. The House is not—

**Mr. Rick Perkins:** I don't think you can sit in the House, though.

**The Chair:** Just to be clear and not to waste any more time, I'll just ask Mr. Gaheer to move to the lobby, or there are some rooms there may be more appropriate.

Mr. Perkins, the floor is yours.

**Mr. Rick Perkins:** Thank you, Mr. Chair.

Thank you, Mr. Giroux and officials, for joining us.

The impetus for this study was the Prime Minister's and the minister's claim at the opening that this would break even in five years or less. In fact, the minister has said publicly, many times since April, that actually there was a return on investment and that return on investment would be five years or less. Every banker would actually love that kind of a deal. You're now telling us that it would take 20 years or more just to break even, if fairy dust is all sprinkled around in certain ways.

You made an assumption based on the Trillium report. Do you have any access to how the Trillium report's numbers of the ecosystem...because when I looked at the Trillium report, I can't find the word Volkswagen anywhere in it. Without mention of that specific deal and without access to the numbers that are behind this fairy dust report of Trillium's, how do you come up with the number that it's 20 years to get it back?

There are assumptions here about taxation levels on individuals and stuff that I think are quite generous.

● (1605)

**Mr. Yves Giroux:** That's an interesting question.

In fact, we use the Trillium report, but we don't endorse it because we cannot replicate—we did not even try to replicate—the numbers that are in the Trillium report. That was not our objective.

We just wanted to look at the government's statements that this would be paid back in less than five years. Using the same report that they used, we conclude that it's significantly longer than that because the government's statements to the effect that these investments would be paid back in less than five years assume not only that these battery plants will be built and operational but also that a whole ecosystem will be built.

Even in the Trillium report, the report admits that for that to happen it would require additional government subsidies for all these other nodes to be established in Canada—from mining exploration to EV assembly to even EV recycling—and also that these would require infrastructure investments, for example, to get access to the mines and the minerals. There are a lot of assumptions made in that report, which suggest that the statements that the government made to the effect that this would be paid back in less than five years are, to say the least, wildly optimistic.

**Mr. Rick Perkins:** One of those issues is that, on the ecosystem, there's likely to be future subsidies since we know the only one that's been announced so far by the minister in Quebec is a subsidized ecosystem.

There are 14 parts to the battery. Over 90% of the cathodes that are made for EV vehicles are made in Asia, and we know the CAMI plant that the Prime Minister and the Liberals made a big deal about six months ago has now shut down because of the lack of supply chain, and that's even with subsidies.

Is there any guarantee that this facility will continue to make batteries at the level that's projected until the subsidy ends? My second question would be this: Are there any guarantees that the plant will continue to operate when the subsidies reach zero in 2032?

**Mr. Yves Giroux:** I haven't seen any guarantees, certainly not in the contracts, that force Volkswagen or Stellantis to continue to operate the plants beyond the expiry of the subsidies. In fact, ministers have been clear that they are conditional subsidies that are tied to production, so I don't think that there are any guarantees that the plants will have to operate at full capacity even while the subsidies are being paid.

That's the short answer to your question.

**Mr. Rick Perkins:** To get the payback of 20 years, it has to operate for 20 years—

**Mr. Yves Giroux:** Exactly.

**Mr. Rick Perkins:** —so if the plant doesn't operate after 2032, then the payback is a minuscule amount of the money that's in there. Mind you, it's based on, in the case of Volkswagen, $15 billion of production subsidies until that point.

Is there any limit...? Let's say that miraculously the plants get an unlimited amount of access to these 14 parts and the minerals in them. Is there any limit to its going above the 100% level that you base this on? Could the subsidies actually be higher and, therefore, cause a further lengthening of the payback?

**Mr. Yves Giroux:** Do you know?

**Ms. Jill Giswold (Senior Analyst, Office of the Parliamentary Budget Officer):** For the Stellantis agreement, the amount was up to $15 billion that the government announced, so that comes with a cap. I believe the latest Northvolt is an up-to amount.

**Mr. Rick Perkins:** Does Volkswagen have a cap?

**Ms. Jill Giswold:** We did not see any mention of that for Volkswagen, no.

**Mr. Rick Perkins:** In terms of the likelihood of this payback happening in 20 years, the way you've put it, what would you give as a ballpark percentage, if we were betting as parliamentarians, that it will take 20 years and not five—or longer?

● (1610)

**Mr. Yves Giroux:** I don't tend to be a betting man because I know the odds of betting are usually stacked against me.

What I've said in my opening remarks is that even the 20-year timeline for the break-even is probably optimistic. I wouldn't want to prove the probability of that because I'm unlikely to be in the same position in 20 years.

[*Translation*]

**The Chair:** Thank you very much, Mr. Perkins and Mr. Giroux.

[*English*]

Given that the bells will stop ringing soon, I will suspend and we'll resume after the votes.

The meeting is suspended.

● (1610)

_____________________(Pause)_____________________

● (1630)

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

Mr. Masse had a chance to start his questioning while we were suspended, but we've resumed this meeting.

You'll have the official time soon, Mr. Masse.

We'll now turn to Mr. Turnbull for six minutes.

**Mr. Ryan Turnbull (Whitby, Lib.):** Thank you.

Thank you, Mr. Giroux and your team, for being here today. I appreciate your work, your office and all the work that you do. I have lots of questions for you. I've read the report. I'm really glad you're here today to answer some questions.

You mentioned in your opening remarks that, as I think we all know, a standard economic impact assessment looks at direct, indirect and induced impacts. Did you look at all three of those in your modelling?

**Mr. Yves Giroux:** We used the Trillium Network's report, and they looked at the direct, indirect and induced economic impacts of each of the nodes.

**Mr. Ryan Turnbull:** If I may, in terms of the indirect impacts, which cover the business-to-business transactions across the value chain, there are some reports here from Electric Mobility Canada, for example, that....

You yourself in your report have said that you've only actually covered a small portion of the value chain in the EV supply chain. If I'm not mistaken, you've actually excluded about 91% of the actual value chain. I can quote from the report:

> Cell manufacturing, which will occur at the Volkswagen plant, only represents a fraction of incremental revenues (8.6 per cent) across the supply chain.

Why did you choose to narrow the scope of your report and not include the rest of the supply chain? Obviously, it moves the break-even analysis out quite significantly if 91% or 92% of the supply chain is missing from your analysis.

**Mr. Yves Giroux:** What we did was look at the impacts of the construction and operation of these two plants—the direct impacts, the building of the plants and operations; the indirect impacts, the impacts on suppliers that will produce input to the plants; and the induced impacts or the job creation and economic impact created by having these jobs in communities.

We chose not to consider these other nodes because, as the Trillium Network report itself states, these other nodes will require additional government subsidies and government assistance to the tune of between 20% and 30%. We didn't include that because it's not happening yet. There's no guarantee that this will happen. As is stated in multiple pages of the Trillium Network, there's no guarantee that this will all take place domestically or take place in Canada. It could take place elsewhere.

The assembly of electric vehicles, for example, as you mentioned, is an important segment and an important part of the value chain. The most value added takes place in the assembly of electric vehicles. To my knowledge, there's not yet a Volkswagen plant for the assembly of electric vehicles in the country.

● (1635)

**Mr. Ryan Turnbull:** Thank you for the response, but with due respect, I find that when you look at only one node, as you've admitted here, you're essentially excluding a lot of the indirect impacts across the entire value chain. Of course, that narrows the scope of your work and would change the....

I understand the point you're making about guarantees, but do we have any guarantees, truly, about what's going to happen in the future? We do not. I think you can admit that all economic impact assessment and modelling is based on a series of assumptions. Can you please comment on whether all the models, no matter what impact assessment you do, are based on a set of assumptions?

**Mr. Yves Giroux:** All of them have to be based on a series of assumptions, especially if you're looking into the future. The only way to have some level of certainty is to look at the past.

**Mr. Ryan Turnbull:** That's correct—yes. The probability of your future predictions being accurate is increased the more you look at the past and see those past behaviours. Is that right?

**Mr. Yves Giroux:** Yes.

**Mr. Ryan Turnbull:** What was the IO model, the input-output model, that you used? Did you use a simulation model? Did you use a standard IO model? What cross-industry impacts did you really take into consideration?

**Mr. Yves Giroux:** It's not us; it's the Trillium Network.

**Mr. Ryan Turnbull:** I'm sorry. I don't mean to interrupt, but I just want to clarify. You relied on that IO model and didn't do your own. Is that right?

**Mr. Yves Giroux:** Exactly. We looked at the Trillium Network study and the caveats and assumptions that they made to come up with their rather exhaustive and complete impact. It's over 100 pages. It takes into account an input-output model, which is simplified.

**Mr. Ryan Turnbull:** Can I also clarify, though? Didn't you modify their assumptions to some degree? You relied on their IO model, but you only focused on one node. Isn't that correct?

**Mr. Yves Giroux:** We focused on the nodes that were the subject of the subsidies that the government announced in April and July.

**Mr. Ryan Turnbull:** Right. That excludes all of the rest of the indirect impacts, which we don't have guarantees on but could very likely, given a fulsome analysis of the transactions, take place across the entire value chain.

**Mr. Yves Giroux:** We excluded these other nodes because they would very likely, as the Trillium Network stated, require additional government subsidies. To include these other nodes that you mentioned, including the EV assembly plants that will require unknown amounts of subsidy, would be introducing an unknown into an equation where we're trying to estimate the payback period of—

**Mr. Ryan Turnbull:** Respectfully, can I dig into that a little bit further?

You're saying that you excluded those other nodes because they would have required additional subsidies. Why would additional subsides be a reason for excluding those additional nodes across the value chain?

**Mr. Yves Giroux:** It is because the level of these subsidies is not known. The level of these investments is not known. That's why it's difficult to include, for example, an EV assembly plant when we don't know whether it will be built. We don't know whether it will be built in Canada. We don't what size it will take or the level of subsidies that will be required to have that additional EV plant in the country. It's very difficult to take into account lots of unknowns that may never materialize.

**Mr. Ryan Turnbull:** I think my point, Mr. Giroux, is that all of the modelling you're doing is based on a set of assumptions. In fact, all of it is essentially a construct that we're modelling to predict the future that we don't have any guarantees over.

Why would you have chosen a more narrow and, in my view, a slightly pessimistic view of how things will turn out in the future? That, obviously, changes the analysis and extends the break-even period to, you say, beyond 20 years.

You've said that you've been optimistic about that. I think you've been incredibly pessimistic about that.

**Mr. Yves Giroux:** I think I've been quite optimistic to a large extent, in fact.

The reason we decide to use and how we decide to use certain assumptions versus others is based on our professional judgment as well as that of our peers. Also, the fact that when we look at studies that are provided to the government or to parliamentarians, we also have to look at what the ultimate objective of the authors of these studies are. If they're doing a study to promote certain interests, we have to take the assumptions that they use with a certain grain of salt, knowing where they are coming from.

In my case, I work for parliamentarians. I work for the benefit of the taxpayers and Canadians, so I don't have a vested interest in being overly optimistic or overly pessimistic.

● (1640)

**Mr. Ryan Turnbull:** We have a vested interest in building an EV supply chain to help increase the economy, fight climate change, meet the demand and make these once-in-a-generation investments, so in a way, doesn't government action in the future actually impact the model in terms of how certain we can be it will turn out positively or negatively?

**Mr. Yves Giroux:** I'm not sure I can comment on what the overall impact of these investments will be on society. My motivation in doing this was to look at whether the stated payback period for the government was really five years or if it was longer or shorter than that.

The appropriateness of the policy is beyond my mandate. It's up to people like you and legislators to decide whether it is appropriate to provide these types of investments, taking into account much more than just numbers and government revenues.

**Mr. Ryan Turnbull:** Thank you.

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

[*Translation*]

Mr. Lemire, the floor is yours.

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

Thank you to the entire committee.

Mr. Giroux, I think it is entirely appropriate to have invited you today to talk about your report—which I welcome, by the way—on production subsidies announced for Stellantis and Volkswagen.

In our view, these subsidies are clearly a response by the federal government to U.S. investment, and I think they've been working backwards. Instead of building the supply chain out of the mine and creating value added at every step of the way, it has played the game of U.S. bidding at a high price, at a cost of billions, if not tens of billions of dollars, with a huge risk.

Do we have the resources to supply those plants? Do we currently have the lithium to be able to do that? If we aren't ready and the chain isn't prepared, we'll ultimately buy lithium from China instead of producing it in Quebec or elsewhere in Canada, particularly at one of the only active lithium mines, the Sayona mine in Abitibi-Témiscamingue.

I think it would have been much more advisable for the federal government to invest in every stage of the transformation. As we know, there are many stages of processing strategic critical minerals to make a battery. We should focus on the mine, but that is not what was done.

So your report highlights something that I think is obvious. If we don't create the supply chain and if we don't allow small- and medium-sized businesses to supply components to each of the plants that will be built, we'll miss the boat.

I really liked your report. Obviously, the 20-year time frame it mentions is very long. This time frame could be considerably reduced if the entire chain—from the mine to the battery, to oxides, anodes, cathodes, cells and so on—were developed. From what I understand from your report, developing the industry upstream would increase the spinoffs from battery plants. I hope that's what's going to be highlighted in this report, and that the government will make a change by making these investments close to the mine. The payback period could then be much faster, in the order of 10 to 15 years rather than 20 years, if all the elements are taken into account. The ideal would be five years, of course.

Is that the case? Did I understand correctly?

Last week, the Quebec and federal governments announced a major joint battery project, the Northvolt project in Montérégie. Have you assessed the impact of the Quebec projects that were recently announced? How are you going to factor in the investment in the Northvolt project and other future investments?

**Mr. Yves Giroux:** Since the Northvolt project in Quebec was recently announced, we have not yet studied its impact. However, we have taken steps to begin this study by requesting information from the Department of Industry and the Department of Finance.

However, when the project was announced, we were pleasantly surprised to see that the Government of Quebec had adopted our methodology for estimating the fiscal impact of its investment. The fact that they used our methodology reassures us of the soundness of the approach advocated in our report. The Department of Industry also used this approach for the Northvolt project.

The Government of Quebec therefore used our approach to estimate that the payback period for this project would be between 9 and 13 years, depending on the start date considered. We'll probably look at that when we get the data from the Department of Industry.

● (1645)

**Mr. Sébastien Lemire:** In my opinion, to have true added value, we have to develop our own chain, as I was saying earlier. So we have to start from the mine and green the process. It's important for the government to invest in innovation and modernization and carbon recovery for each stage of processing, and to ensure that travel and transportation are limited in all of this.

There are also investments that can mitigate the risk of dependence on external supply chains. We know that lithium and production activities at the various stages of the battery chain that will be produced here will probably have a better carbon footprint and a better environmental footprint, and that they will enable us to get a quicker return on our investments.

Do you think the current policy incentives or investments are sufficient to accelerate the creation of small- and medium-sized businesses or companies that would like to develop stages in the supply chain? Do you feel that the federal government is a reliable partner at this time?

**Mr. Yves Giroux:** It's difficult for me to comment on this aspect, as we've focused on one particular aspect of the electric vehicle battery industry. We haven't considered the fiscal, financial, monetary and regulatory incentives for the entire electric vehicle production chain.

However, as a Canadian taxpayer, I too sincerely hope that the developments your colleague Mr. Turnbull referred to will all come to fruition in Canada. However, we have no guarantee of this, and it wasn't part of our study. We haven't looked into it because we don't know the extent of all the supports that are available or all the projects in development or that could be in development in the value chain.

**Mr. Sébastien Lemire:** Take, for example, lithium that goes into the cell at the last stage. Do you think it would cost less to produce what is needed at each stage and buy it here, rather than relying on lithium from China, which controls 80% of the lithium market and is currently selling it at a high price?

**Mr. Yves Giroux:** I don't know if it would necessarily cost less, but I can tell you that it would certainly reduce geopolitical risks. This can be a very important consideration in government decisions to invest or spend in this area to reduce the risk of undue dependence on a part of the world that may be a little more risky or unstable.

**Mr. Sébastien Lemire:** Well said.

Thank you, Mr. Chair. I'm sorry for the delay.

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

Mr. Masse, the floor is yours.

[*English*]

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

Thank you to the witnesses for being here.

I'm just going to start with a review. The government bought the Trans Mountain pipeline for $4.5 billion. Then it went up to $12.6 billion, and then $21.4 billion. Now I think it's up to $30.9 billion. I think your department noted it was $14 billion to get rid of the asset if it closed it down. I'm just wondering if you have an update on that particular cost because I do want to compare something here if we could.

**Mr. Yves Giroux:** We don't have an update. The last time we looked at that issue the construction costs were around $20 billion, and at that point we had estimated that it was very likely to be a losing proposition financially speaking for the federal government. Now with the construction costs having further increased, it's unlikely to have improved. If anything it has probably deteriorated.

**Mr. Brian Masse:** Right.

I want to be public and say how much I appreciate the report that you did on the auto sector here. I've been calling for a national auto strategy for years that includes transparency about the investments we give to it. Obviously, coming from Windsor, the automotive capital of Canada, we've witnessed lots of job losses over the years, and with the Inflation Reduction Act, I've been warning the government for years that both Democrats and Republicans were moving forward with this because it's highly popular in the U.S.

To me it's less about whether you're in the game or not. With your report, when you compare the two estimates, do you think there's a potential for the Trans Mountain pipeline project, which is spiralling out of control if you ask me? Is there a similar vulnerability with this auto investment, or is it contained because it is related to production?

**Mr. Yves Giroux:** The two are quite different. In the case of Trans Mountain, as you alluded to, construction costs are difficult to predict until they're completed, whereas in the case of the contracts for Stellantis and Volkswagen the government has committed to.... Even for Northvolt, from what I heard, the government is providing some support for the construction, but the difference is that if there are costs overruns they are on the private sector to bear. The vast majority of the subsidies are production-linked. They're an amount per kilowatt of battery power, so it's limited to the capacity of the production.

● (1650)

**Mr. Brian Masse:** You're right. That's where I think there's a big distinction and that's where I'm looking. You're right. There could be some elements in construction, but also if you don't produce it you lose it. That's going to be the big thing, and if we don't produce things it will be awful. Can you tell me in your studies did you look at...?

Often in Windsor we say one auto job equates to roughly to seven other jobs from spinoffs and stuff. That's the historical connection. It might change though. Did you look at wages and those earnings and how much in taxes will come in from the workers? Is that something you measured in your study?

**Mr. Yves Giroux:** No, it's not something that we directly measured. We took the economic and government revenue impacts from the Trillium Network study. If my memory serves me well, they have a 1:6 ratio at some point depending on the nodes, but I would not want to be firm on that. It's the Trillium Network's numbers.

**Mr. Brian Masse:** Yes, and I'll be honest. I didn't read it all—the Trillium Network report—and that's why I'm asking. Do they take into account the benefits that workers get?

My first public meeting to get a new border crossing was in 1998 at Marlborough Public School, and we're finally getting the Gordie Howe bridge built. Does it take into account the truck traffic that goes back and forth? We've had to pay for that, as Canada, so the more traffic on that the better for this, especially with the auto investments that are taking place from Quebec all the way through. In Windsor, we often say the minivan is built by crossing the bridge seven times back and forth, so to speak.

Was that any part of the Trillium...? Has that been calculated?

**Mr. Yves Giroux:** I don't have that level of detail. I think that's a question that would be better answered by the authors of the Trillium Network report, unless Chris and Jill know the answer. They're not kicking me under the table though, so that's probably a sign that they don't have that information either.

**Mr. Brian Masse:** This is why I really like your report. It's really a snapshot on something that we've been trying to measure for a long time. I'm down the rabbit hole on this stuff, being an advocate for the investment in auto.

For example, in 1987, when the government of the day rescued Chrysler, we actually made millions of dollars off that. When GM was assisted most recently, and Stellantis, if we'd kept our shares in GM, we would have made a lot more money, but the government sold them. It was not your government; the Conservatives sold them. We would have made more money on the shares there too, so there was investment capacity there by saving them.

I'd like to know, specific to this study, if there are things that, when you look back, you would do differently. Now that you've heard some criticism out there and you've heard about some strengths, are there things you would maybe do differently to measure it in the future?

**Mr. Yves Giroux:** I think we would probably communicate the conclusions of the reports slightly differently, but the analysis, I think, is as good as it gets, considering that we had some questions for the authors of the report, but they unfortunately did not have the time or the resources to answer our questions.

**Mr. Brian Masse:** Really quickly, will there be an update on this report? Will there be time to look at what their report is? Maybe they will get back to you in October or something like that. Can we look forward to that?

At the end of the day, what I'm looking at through all of this is perhaps a more standardized way to measure these investments, and I'd also like to see employment hours written into them, so when we have these contracts.... What's important to me at the end of the day is people working hours: paying taxes, paying union dues, paying money to the United Way, and all the different things that come out of it.

I'm just wondering whether we'll get a more robust process to measure the auto investments we have as opposed to basically doing Hail Mary passes at the last minute with no policy.

● (1655)

**Mr. Yves Giroux:** Based on what we know, the government itself seems to have based its decision to invest in these two plants on the Trillium Network. Maybe there is additional information and additional analysis that was performed.

We plan on continuing to look at this issue, but I can't promise that we'll do an exhaustive, deep-down analysis such as the one you alluded to. That would require significantly more resources, information and data than what we have.

**Mr. Brian Masse:** That's fair enough.

I thank you, Mr. Chair, for the time.

I think that we're in this or not. With the industry the way it is and auto moving the way it is, the cost is far more substantial not only from a climate perspective but also from an industrial manufacturing perspective. I've seen first-hand how assertive the Americans are on this. I appreciate that we're actually addressing it, but it would be good for taxpayers to know their value. I appreciate the work that you and your team have done.

Thank you, Mr. Chair.

**Mr. Yves Giroux:** Thank you.

[*Translation*]

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

Mr. Généreux, you have the floor.

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

Thank you very much for being here today, Mr. Giroux, and your acolytes. I'd also like to thank you for your report.

I'm going to take the question asked by Mr. Masse a step further. Why do you say you would have tabled the report a little differently? Did you get any unpleasant feedback, or were there people who disagreed with you?

**Mr. Yves Giroux:** That's an interesting question, which I didn't expect to be asked.

As soon as we publish a report that dispels certain myths or sets the record straight, we're often accused of having misunderstood certain things and of having a grudge against a particular sector, which is not at all the case.

As I mentioned to Mr. Masse, if we had to do it over again, we would probably have a slightly different communications strategy. We would say that we aren't criticizing the merits of the policy itself or quantifying it. So we'd make that part clearer. Instead, we'd address the analysis of government's claim that government investments would be repaid in less than five years. That was the primary purpose of the report, not to comment on the policy itself.

**Mr. Bernard Généreux:** Okay.

I'm going to talk about something that the Minister has raised ad nauseam: the break-even point.

I'm a businessman. When I invest $100, I expect to make money. My definition of the break-even point is the amount that will come back to me over and above my initial investment. Is your definition the same as mine?

**Mr. Yves Giroux:** That's my definition as well, even though I'm not as experienced of a businessman as you. In fact, I'm not a businessman at all.

**Mr. Bernard Généreux:** All right.

You were pretty clear in your report: the government, Minister Champagne specifically, announced that the country would see a return on investment in five years. It's about not just the break-even point, but also the return on investment time frame. You, however, estimated the time frame to be 20 years.

Have you previously used estimates or reports provided by the Trillium Network for Advanced Manufacturing? I'm not familiar with the network. Are you? Have you produced reports using its data in the past?

**Mr. Yves Giroux:** As far as I know, this is the first time [*Technical difficulty—Editor*] used its reports and data. My two acolytes, as you called them, seem to be agreeing.

**Mr. Bernard Généreux:** I missed the beginning of your answer. Did you say this was the first time?

**Mr. Yves Giroux:** Yes, this is the first time since I've been on the job.

**Mr. Bernard Généreux:** Very well.

If I understand correctly, the government's position on the merits of this investment is entirely based on the Trillium Network's study. Of course, no one is against doing the right thing and helping the environment.

Contrary to what we might expect, the minister delighted in the fact that your report deals with only 8% or so of all the spending, so only the investment in the plants, not with production. Can you clear that up? Is the minister right to say that the return on investment applies only to the plant portion, or does it apply to the entire project and all the subsidies?

● (1700)

**Mr. Yves Giroux:** It applies to the entire project, in other words, the construction of the plant as well as production for the next 20 years, assuming the plant continues to operate at full capacity once production gets rolling, even though the subsidies are slated to end at the end of 2032.

**Mr. Bernard Généreux:** Why, then, is the minister saying the opposite?

**Mr. Yves Giroux:** That's a question only the minister can answer.

**Mr. Bernard Généreux:** I find that strange. This isn't an investment of a few million dollars. We are talking about tens of billions of dollars. As Mr. Lemire, the Bloc Québécois member, pointed out, the potential for a full supply chain is on the table.

Developing a mine in Quebec can take between 10 and 15 years, if you consider all the permit requirements and the process of bringing it into production. Most of the inputs needed to manufacture the batteries will be sourced outside Canada.

According to the government, this will create 30,000 indirect jobs, in addition to the 3,000 direct jobs in construction and, subsequently, production. If most of the inputs are sourced outside Canada, will we see as many jobs created? The mine production won't happen in Canada.

**Mr. Yves Giroux:** That is why we didn't take into account all the clusters the Trillium Network included in its report, which assumes that the subsidies to build one or two battery plants will spur the creation of a wide range of clusters, from prospecting and mine production to vehicle assembly and recycling. As noted in the Trillium Network report, the subsidies necessary for that would have to cover 20% to 35% of costs.

For that reason, we didn't include all those other aspects. Nothing is guaranteed, to use a term I don't really want to use. I'll put it in terms of an analogy: you can't sell the bearskin before you kill the bear, but in this case, you can't sell the bearskin before the bear is born. We don't know whether those clusters will emerge in Canada. If they do, we don't know whether it would've happened even without the subsidies to support American plants, for instance. That's why we didn't include all those other elements.

Mr. Perkins talked about fairy dust. I wouldn't go that far, but that's more or less what it is. I'll leave it there.

**The Chair:** Thank you, Mr. Généreux. That's the end of your time.

Mr. Giroux, before we go to Ms. Lapointe, I want to take a moment to ask you a quick question further to what Mr. Généreux just asked.

Earlier, in response to one of Mr. Turnbull's questions, you said that you took the Trillium Network's assumptions with a grain of salt and that you weren't overly optimistic or overly pessimistic given

[*English*]

where they are coming from.

[*Translation*]

Where do you think the Trillium Network is coming from?

**Mr. Yves Giroux:** In my view, it's a group that has worked hard to promote the auto industry and boost its growth. Trillium worked with Clean Energy Canada and is already supportive of the EV industry. That is what I meant.

**The Chair:** Thank you.

Now I'll turn the floor over to Ms. Lapointe.

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

[*English*]

I will be sharing my time today with my colleague MP Turnbull.

I am a member of the natural resources committee, and we are currently studying the U.S. Inflation Reduction Act. What has become clear as we hear testimony from expert witnesses is that companies will not invest in Canada without subsidies. The other thing that witnesses are telling us is that Canadian IP and companies are leaving Canada for better opportunities in the U.S.A.

My question to you is this: Have you considered what the economic losses would look like for Canada without these investments?

● (1705)

**Mr. Yves Giroux:** That's a good question. It probably speaks to one of the main motivations for the government to have made these decisions, because they want to be competitive with the U.S. We have not looked at what would happen in the absence of these subsidies, but the Trillium Network mentions in their report that these subsidies will help Canada to sustain rather than grow its vehicle assembly industry.

According to the Trillium Network report, without subsidies for battery plants, it's likely that the auto sector, which is mostly concentrated in southern Ontario, would continue to decline. We have not looked at the impact in the absence of these subsidies, but the Trillium Network seems to suggest that it would mean a decline of the Canadian auto sector.

**Ms. Viviane Lapointe:** I would like to stay on the IRA study that we're doing.

Again, the witnesses have told us that we need to invest more and that we also need to move more quickly in order to compete with the IRA. The investments that we've seen Canada make, which are very necessary investments, are leading our country as an EV supply chain leader.

What weight did you give to the IRA landscape and Canada's need to respond in your assessment?

**Mr. Yves Giroux:** In our assessment, we looked at the statement that ministers have made to the effect that the subsidies to Volkswagen and Stellantis would be paid back in less than five years. That's what we did. We did not try to assess whether it was a good or a bad response to the U.S. IRA, or whether it was a good industrial policy or a bad one, recognizing that there could very well be many different reasons for governments to make these decisions, including trying to counter the dominance of China, for example. That's why we didn't pronounce on the policy. We looked at the potential payback period for these government investments.

**Ms. Viviane Lapointe:** Thank you.

It's over to you, MP Turnbull.

**Mr. Ryan Turnbull:** Thanks.

Following on my other line of questioning, Mr. Giroux, if you had included the 91.4% of the supply chain, i.e., the other nodes, what would your break-even analysis have looked like? What would it have looked like if you had included that 91.4%?

**Mr. Yves Giroux:** Had we included all these other nodes, we would also have needed to include the subsidies that will be required to create these other nodes, which are alluded to in the Trillium Network report, but these additional subsidies are not quantified yet. It would affect the payback period, but it would depend on the magnitude of these other subsidies.

**Mr. Ryan Turnbull:** Would it have shortened the time frame for the break-even analysis?

I think the key here is that you made a set of assumptions that were quite a bit narrower than what the government's analysis was. I think it's pretty clear to me that our assumption is that, if you make anchor investments in one node, it's going to attract investments in other nodes of the supply chain, which I think is quite reasonable, whereas you've essentially excluded all of the other investments and production-related revenues that would come in from those other nodes.

If you then opened your analysis up and did a model that included that 91.4% of the value chain, would it not have shortened the time frame for the break-even...?

**Mr. Yves Giroux:** I'm not sure about that.

I'd like to point out one example of why we think our approach is reasonable, much more so than the government's. For example, when the subsidies to Volkswagen were announced, we saw what happened to the Stellantis plant. They downed tools and stopped construction until they were given similar treatment.

That's why we did not want to include or suppose or assume that all these other nodes that don't exist yet or are nascent would be created without subsidies. The Trillium Network is clear that they will very likely need subsidies to the tune of 20% to 30%. We saw with Stellantis that they wanted similar treatment to what Volkswagen had.

It would be very difficult for us to include the potential impacts of plants and subsidies that are not known by anybody yet.

● (1710)

**Mr. Ryan Turnbull:** Yes, but you know as well as we all do that the government has been very public about its intentions to build back a stronger auto sector, create jobs and essentially meet the challenges of today and tomorrow with a strong automobile industry here in Canada.

The intentions are there to build out that supply chain. That's why I find your assumptions very narrow, because you're not looking at the broader vision that the government has been very public about and understanding that those investments are going to come in across the value chain, because that's what we're intentionally building here, a stronger auto sector.

That's what concerns me about your analysis. With all due respect, that's what we're here to do, to question your analysis.

What would have happened if the government hadn't created the tax breaks—you call them production subsidies. They're actually tax breaks, in my view, that are tied to production. If we hadn't competed with the Inflation Reduction Act, what would have happened to our auto sector?

**Mr. Yves Giroux:** To answer that last question, I think that not providing subsidies to respond to the IRA would probably lead to the continuous decline of the auto sector as consumers demand or are mandated to buy more and more electric vehicles, with the U.S. heavily subsidizing their own EV sector.

**Mr. Ryan Turnbull:** That's the rub for me: We don't want to see the decline of our auto sector. We are putting in place the necessary measures to ensure that our auto industry remains competitive and that we anchor investments here in Canada.

That's where I think we differ. I don't think you're buying into the broader objectives. Maybe it's not for you to comment—I get that—but those policy objectives are much more important than whether it's five or 10 years before we break even, in my view.

**Mr. Yves Giroux:** I don't disagree with you that there are much bigger policy objectives than just having a return on investment.

My point is that the return on investment over five years is not realistic, but I fully recognize—in fact, I'm encouraged to see—that the government is taking other things into account than just the return on investment. If governments took only returns on investment into consideration when spending, there are many things that governments wouldn't do.

**The Chair:** On that note, we have Mr. Lemire.

[*Translation*]

**Mr. Sébastien Lemire:** Thank you, Mr. Chair.

Mr. Giroux, I again want to say how much I appreciate your great report, particularly for Quebec. Thank you.

For decades, the auto industry has been synonymous with Ontario. Any Canadian investments made in the sector go to Ontario, and it seemed as though the federal government wasn't there when the time came to back Quebec. We see that in other sectors as well. With the battery industry and the electrification of transportation, it feels as though Quebec is finally getting a fairer share of the pie. There was skepticism at first about the benefits of those investments, but more and more, we're seeing them materialize.

Do you feel as though this initial investment is making it possible to build the supply chain at the front end? Is it useful? Could this have happened without spending billions of dollars and trying to one-up the U.S.? Could we have arrived at the same result without the subsidies?

**Mr. Yves Giroux:** It's hard to say with any certainty. You would need a parallel universe where no subsidies had been granted in order to draw a comparison. As things stand, all we can do is speculate on what would have happened had the subsidies not been granted.

I believe one of Northvolt's executives was asked whether the new plant would have happened without the subsidies. The answer was yes, but he added that it wouldn't have happened as quickly. You can take him at his word, or you can believe that Northvolt would have built the plant somewhere else given how attractive the American subsidies are, plain and simple. As I said, it's tough to answer that question with any certainty.

● (1715)

**Mr. Sébastien Lemire:** Conversely, then, would we have been able to create the building blocks needed to get the ball rolling without government investment? I'm talking about lithium and the various steps in the chain of production. Right now, the investment isn't there. There's been no investment in production.

The timeline for a mining company wanting to set up here is still pretty lengthy, considerable—staggering even. If production starts in five or seven years, there's no guarantee that it will be possible to operate the mine, because it takes about a decade to go from mineral exploration to mining the raw material.

In short, could it have been developed without the buyer? When it comes to international production, shouldn't we prioritize foundational investments instead of investing at the end? A return on investment is never guaranteed, as you mentioned.

**Mr. Yves Giroux:** It's well known that North America's auto sector is highly integrated. During the discussion with Mr. Masse, we heard that a vehicle can cross the border, in some form or another, up to seven times before it's fully assembled.

**Mr. Sébastien Lemire:** That's true.

**Mr. Yves Giroux:** It's not unlikely, then, that even without battery plants in Canada, we'd see some development of components. Lithium and other metals used in battery production are in high demand. Does Canada having one or more battery plants have a major impact on the development of the mining industry? Maybe, maybe not. Maybe those minerals would be highly sought-after even if the plants were in the U.S. or somewhere else.

As I see it, the crucial part is supply. It's less important whether the industry sources the lithium in Abitibi or China. It needs lithium, at a good price and quickly. The battery plants will probably generate additional demand, but whether they're in Bécancour, McMasterville or Saint-Thomas doesn't make a big difference in some conventional sectors, like minerals and metals.

**Mr. Sébastien Lemire:** I think there's an important aspect here. Recycling has to be taken into account at the front end. With battery manufacturing, we know losses are very common in the beginning. Further to trial and error, a number of prototypes will end up having to be recycled, so recycling has to keep pace with battery production.

Do you think enough has been done so far to encourage related industries to develop recycling capacity? I'm referring to those that will latch on to battery manufacturing or support the megaprojects we are talking about.

**Mr. Yves Giroux:** That's not an area we examined, because it's something that tends to come afterwards, a certain time later, given that batteries are recycled at the end of the vehicle life cycle.

You mentioned trial and error. Indeed, defects or flaws always play a part in battery production, given what I know about the sector. However, it doesn't represent a significant part of the value chain; it's an area that can be developed down the line, since EV uptake and demand for battery disposal are still low.

**Mr. Sébastien Lemire:** I'm going to ask you one final question to wrap up my third turn.

You received a briefing note from Electric Mobility Canada criticizing your report and pointing out that a tax break is different from a subsidy, since there is no tax credit if there's no production.

That made me think. Did you take that into account in your report? If the company were ultimately to shut down production, wouldn't that be a direct hit to our wallet, even if the amount is less than $20 billion or $28 billion?

**Mr. Yves Giroux:** It's semantics. Whether you call it a tax credit, a production tax credit or a subsidy, it's direct support from the government.

That said, the point was made that the subsidies are tied to production the vast majority of the time. That provides some assurance that it won't spiral out of control, as Mr. Masse mentioned earlier. It is linked to production: if there's no production, there's almost no subsidy. That amounts to a bit of control or assurance that the money gets spent only if the plants produce something.

**Mr. Sébastien Lemire:** Thank you.

● (1720)

**The Chair:** Thank you.

We now go to Mr. Masse.

[*English*]

**Mr. Brian Masse:** Thank you, Mr. Chair. I appreciate the opportunity to intervene again.

One thing that's very interesting about the report you have at this time.... Again, there can be criticism of the report. I think it's very good value-added for understanding investment in the auto industry. Our hand was forced by the United States, even before this. You're either in or out with massive subsidies. We've been losing jobs to Alabama and all kinds of different places. Republicans and Democrats all over the place have been doing that. Our workers' quality is what has kept us in the game until recently.

We have two projects here. I want to get your opinion on this. We have the pipeline, and we're spending around $31 billion on that right now. Then, we have this investment of $28 billion for two plants.

Looking at the models of the investment the government did, if we had to do it again, in terms of picking one of those two models, which model would be the better investment for Canadians? Should we do it like the pipeline one that you did the report on, or do it this way? What would be a better and safer return of money for Canadians in terms of investment and a return on investment?

**Mr. Yves Giroux:** You're putting me in a very delicate spot by having me choose between two.

It is not my place to say which one is the best, because they have different objectives. One is aimed at getting Canadian oil to market and reducing the discount at which it sells. The other is more of an industrial policy on jobs and avoiding the decline of the auto sector.

**Mr. Brian Masse:** I'm not trying to do that either, but I think it is.... Maybe I can rephrase it, if that helps. You don't have to answer if you don't want to, because I want this to be constructive.

Isn't it fair to say, though, that our auto investment has more fixed numbers, particularly for jobs and hours, and that it has better controllable measures for that investment than the pipeline model? Would that be a fair...?

Don't answer if you feel it's.... I don't want to put you in that situation.

**Mr. Yves Giroux:** Thank you.

I'll plead the fifth. I know it's the wrong country but....

**Mr. Brian Masse:** No, it's okay.

Again, I find the report helpful. I mean, there's some criticism, and I have it too. At the same time, I find this is a good starting point. We need to have people trust that the investment in the auto industry returns for Canadians, so I don't take this as negatively as the government members do.

In the other report, are there any measurables on research and development or partnerships going to universities and colleges? Do you know whether that was part of the report and what you took into...? There were massive amounts of investment, previously, in the colleges and universities—the University of Windsor, St. Clair College and many others, all the way through the supply chain—to do R and D, especially in electrification.

Do you know whether that was included in this?

**Mr. Yves Giroux:** I'm not sure, but I know there's a mention in the report saying that R and D and innovation aspects tend to take place more in the U.S., because that's where the HQs of the companies are. There are some in Canada, but it tends to.... I think it mentions that. I don't have the exact page number, but it mentions that.

**Mr. Brian Masse:** You're right. We have a hard time competing there too.

My point is this: If we don't have that production here, wouldn't it be a measurable loss—

**Mr. Yves Giroux:** Yes.

**Mr. Brian Masse:** —because we've been paying millions to universities, colleges and stuff like that? That would be part of the declining asset, I guess.

Okay. That's what I was looking at there.

I want to return to the workers to get a bit more clarity.

Are we going to get some type of update? Is it possible to do a more robust...or maybe there's a different model for employment hours, wages earned and the taxation they put back...? Is there another model that can be done to separate that in the future? I'm curious about that, because we don't often have the human factor in these larger analyses. I didn't see that. I wonder whether that can be something taken under advisement, or whether there's a model out there that's easy for you to.... You only have limited staff and resources, but I find that component is often missed.

It's like our health care dollars. Our dental care is going to save us money, because people won't go to the hospital for emergency services for dental anymore. That's why I'm looking at the workers. By far, they're going to be unionized, get benefits and so forth, so I'm wondering whether there's a measurement....and hours of employment.

**Mr. Yves Giroux:** We had an interesting discussion with Unifor yesterday. They made these exact points. That's looking at a micro aspect, whereas we look at the macro—

**Mr. Brian Masse:** Yes.

**Mr. Yves Giroux:** It's the economy-wide perspective.

In order to do a study like the one you're alluding to, we would need to know the working conditions of the employees in these plants, whether they're unionized or not, and all the benefits. I'm not sure we would be able to get that information in a timely manner.

● (1725)

**Mr. Brian Masse:** That's fair enough. I just hope that's done in the future because even their contributions to the United Way are savings and social savings on a magnitude for children, persons with disabilities, seniors and all those different things that wouldn't be there. Our United Ways would collapse—in my region, anyway—without that type of investment.

Where I'll conclude, Mr. Chair, is that I hope that we get, in the future—and maybe it's not necessarily through you, but maybe through the government or if there's a learning process—a little more of a robust analysis of how workers benefit through these things. That's what I would hope to see.

Again, I know that you've taken on some criticism for the report and so forth, but I guess that means that it's making its way through being evaluated and there's value in that. I appreciate it because I think the more content that Canadians have and the more we analyze the auto investment, the more we'll see much better policy in the future.

Thank you very much for your time.

[*Translation*]

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

Over to you, Mr. Vis.

[*English*]

**Mr. Brad Vis:** Thank you, Mr. Chair.

Thank you to everyone from the PBO for being here today.

What information did ISED provide to your office to assist in the preparation of these reports?

I'll ask a couple of subsequent questions.

Did ISED provide the PBO with an estimate of the break-even point for subsidies granted to Stellantis-LGES? Did ISED refuse to share any information with the PBO? If so, what impact did this have on the report? Among the data provided by ISED, do you disagree with any, and if so, why?

**Mr. Chris Matier (Director General, Economic and Fiscal Analysis, Office of the Parliamentary Budget Officer):** Thank you for the question.

Upon request, ISED provided us with the methodology and the data they used to determine the break-even rate for Volkswagen for the initial announcement. Based on their numbers, they came up with a break-even rate of 3.3 years. That was consistent with the government's less-than-five-years payback that the minister announced. They walked us through that methodology. They walked us through their data sources.

**Mr. Brad Vis:** On that point—and I want you to continue in a second—on April 26, the minister was here and he said, “if you look at the multipliers that are normally used, an investment like [the one they've given to Volkswagen would] generate between $200 billion and $400 billion over 30 years.”

Was his assessment here before committee of $200 billion to $400 billion reflective of the assessment you received from the department when you requested the information?

**Mr. Chris Matier:** Yes, that was part of the request that they provided the information for, but that wasn't directly part of our analysis in the report that was published.

**Mr. Brad Vis:** Okay. Thank you.

What's very interesting to me is.... We've heard a lot today about making these major investments in one sector of the economy. I see the argument, though I might not necessarily agree with it. I would be remiss if I didn't raise the point that much of the production in Canada will not be for domestic consumption.

Is it fair for me to assume in my reading of your report and the money granted—the full production subsidy up until 2033, I believe—that we would be effectively subsidizing Volkswagen to sell cars in America?

**Mr. Yves Giroux:** Given the highly integrated nature of the auto sector, that's quite likely because, personally, I don't know of any plans by Volkswagen to build an EV assembly plant. Very likely the batteries built in the Volkswagen battery plant will be shipped to the U.S., where they do assemble EVs or have plants.

That could end up subsidizing batteries that will be assembled in the U.S.

**Mr. Brad Vis:** In your analysis, did you consider the overall cost of an automobile and what proportion of the cost of an automobile is directly related to the battery?

Maybe I'll rephrase that. What proportion of the cost of an electric car is solely attributed to the battery?

**Mr. Yves Giroux:** The estimates vary depending on exactly the type of car, whether it's a high-end car or mid-range. Between 25% and 40% of the cost of the car is related to the batteries.

● (1730)

**Mr. Brad Vis:** Is it wrong for me to assume that the Government of Canada, for whatever reasons, has made an investment or given Volkswagen up to $13 billion, and as part of that agreement, we will be subsidizing the sale of Volkswagen cars to American or Mexican citizens up to 40%?

**Mr. Yves Giroux:** I wouldn't say that the subsidy itself would represent up to 40% of the car.

To have a sense of proportion, we'd need to know what the production cost for Volkswagen would be, and we don't have that information. It's what the subsidies will cover in terms of the percentage of the cost of the batteries.

**Mr. Brad Vis:** We do know that the full cost of production is being subsidized by the Government of Canada as a part of the contract signed between Volkswagen and the Government of Canada. Is that a fact?

**Mr. Yves Giroux:** That is a fact. That is in the contract. It's a subsidy per unit produced.

**Mr. Brad Vis:** It's up to 100% at certain times in the first 10 years of production.

**Mr. Yves Giroux:** It's up to 100%, I think, and—

**Mr. Brad Vis:** It scales down.

**Mr. Yves Giroux:** Yes, it scales down to reach zero by the end of 2032.

**Mr. Brad Vis:** Is the sale of those batteries subject to any type of federal tax? Is that part of Canada's ability to get to a break-even point? Are we going to be taxing Volkswagen on the sale of those batteries, or is the sale of those batteries tax-free?

**Mr. Yves Giroux:** The sale of these batteries, to the extent that the batteries are an input into a car, would be taxable but the tax would be recovered. We have a value-added tax regime in Canada, which are the GST and HST, so it's not taxable. It's taxable only at the end point of sale.

**Mr. Brad Vis:** Finally, in your break-even analysis, are you accounting for batteries being sold in Canada, or is that not part of your analysis?

**Mr. Yves Giroux:** That's not relevant to the analysis. It's the production and the inputs into the production that are relevant.

**Mr. Brad Vis:** Going back to my first point, based on the data you received, the $200 billion to $400 billion spinoff investment referenced by the minister at this committee would not be accurate—based on the data provided to you by the department.

**Mr. Yves Giroux:** It would be accurate if you take into account the fact that the subsidies for these two battery plants will lead to the creation of all these other nodes, which themselves, as stated in the Trillium report, will require additional subsidies.

**Mr. Brad Vis:** It's only under the assumption that future government subsidies are put forward for the nodes to be in Canada.

**Mr. Yves Giroux:** That is my understanding, but Chris is looking into the exactitude of that statement.

**Mr. Chris Matier:** In response to that information request, we posted the ISED response or the minister's response, which was copied, on our website. I would just refer you to that as it gives more detail related to the statement of the $200 billion in value.

**Mr. Brad Vis:** It was $200 billion to $400 billion.

**Mr. Chris Matier:** The quote we asked for, I think, only included the $200 billion.

**Mr. Brad Vis:** Thank you all for your time.

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

Mr. Sorbara, the floor is yours.

**Mr. Francesco Sorbara (Vaughan—Woodbridge, Lib.):** Thank you, Chair.

Welcome to the team from the parliamentary budget office. As an economist myself, I want to just give a shout-out to the team. Whether it's on the digital services tax act or the alternative minimum tax, I will admit that I tend to read everything you've put out recently. I tend to—if I can use the term—“geek out” a little bit on the policy side and read it.

I just want to say thank you. I want to say thank you for the research that you do. When you are modelling things into the future, doing present-value calculations and putting inputs in there, sometimes it's not as easy, but you use the best data that you have available to you. I know you folks do a great job on a lot of the reports that you put out. I very much value this body, which is there for parliamentarians to use in their work.

First off, I want to comment on the CAMI plant. I know there was a comment made earlier. Actually, this is exciting because General Motors is moving the battery production from Ohio, where there have been some hiccups, to Ingersoll. In the second quarter, they're now creating 300 new jobs.

Where the actual assembly of the BrightDrop courier van is—they call it that—they're going to have the battery right beside it. Actually, it was even written in the National Post a few weeks ago—I think it was the National Post or the Globe, one of the two—how our plan, the government's plan to attract investments in assembly and battery production, has come together with the GM Ingersoll plant producing the BrightDrop. It's a great victory for Canadians. It's a great victory for the workers who work there, and we're going to create 300 new jobs.

One thing that's been very important to me, Mr. Giroux, is our response to the Inflation Reduction Act. I've argued that many times. We've seen it in budget 2023 with the investment tax credits. We hope to see the enabling legislation come with those, but also in response to being at the table and providing, as I call them, production incentives to Volkswagen, Stellantis and Northvolt.

If we hadn't responded to the Inflation Reduction Act, Mr. Giroux, as an economist and someone who looks at the numbers, would you say that our auto industry in Canada and the whole supplier continuum would be in decline?

● (1735)

**Mr. Yves Giroux:** Thank you for your kind words, Mr. Sorbara. I knew there would be a “but” somewhere, but it didn't happen. I'm pleasantly surprised by that.

To answer your question in a more serious manner, I think that without what you call “production incentives”, and given what the U.S. is doing with the Inflation Reduction Act, it's quite clear that the Canadian auto sector would be condemned to a slow decline—maybe not so slow a decline with the move to EVs.

**Mr. Francesco Sorbara:** I thank you for saying that because I have covered the auto sector in my private sector career. I saw in 2008 and 2009 what happened with the industry. I covered the sector both for a rating agency and on the bond desk before having the privilege to serve the wonderful residents of Vaughan—Woodbridge, and I understand the industry quite well. If we were not at the table, we would not have seen these three very strategic investments that have moved us up in the BloombergNEF ranking for electric vehicles to number two in the world behind China. That's what we're trying to do. We're trying to reshore the supply chain back to North America.

I think you would agree that this is one of the major impetuses for the IRA, and for our going to the table to make sure that we have a North American supply chain when it comes to this transformational process that's going on in this very important sector of the economy, the auto sector.

Is that really not what's going on here?

**Mr. Yves Giroux:** The impetus behind the Inflation Reduction Act is to ensure that the American auto sector is not dependent solely on one country, namely China, for the supply of its batteries and critical minerals. The Canadian response to the IRA is also aimed at ensuring that the Canadian sector doesn't lose out at the expense of the American auto sector, so that there is still a Canadian auto sector in the years and hopefully decades to come.

I have no disagreement there.

**Mr. Francesco Sorbara:** I would say that now the responsibility is on us.

As a fiscal hawk—if I can use that word, and I'll call myself a “hawk”—I am very cognizant that, when we provide foreign or domestic incentives for an investment here in Canada, those are taxpayer dollars, full stop. That is an opportunity cost. You could use those funds for X, or you could use them for Y. We are using them to ensure we have a robust electric vehicle sector along the continuum.

The big “but” on my side is that it's our responsibility to ensure that we get those other pieces put in place, whether it's the mine in Quebec or Ontario; the recycling of the batteries and the nodes, whether in Quebec or Ontario; or the other parts of the continuum. It's ensuring we're there. That's where the full benefit comes into play.

Obviously, you can't measure that today because we don't know, but the onus is on us to make sure that we continue to create the conditions in which those investments are made. That's really why, in the PBO report, you've analyzed it in such a manner.

● (1740)

**Mr. Yves Giroux:** That's one good reason we analyzed it the way we did.

The other reason is that, as I mentioned, the auto sector is highly integrated in North America. It's quite possible that battery plants located in the U.S., as opposed to those located in Canada, would also lead to important economic spinoffs and the creation of an ecosystem for the other nodes. However, there is no way of knowing that for sure, because there is no alternative world in which we could see what happens in that other scenario.

However, using our best professional judgment we can assume that the auto sector, being integrated now, will continue to be integrated between Canada, the U.S. and Mexico in the future.

**Mr. Francesco Sorbara:** I just want to say thanks to you and your team for all the great work you do. You used the words “best professional judgment”. I look at these reports, and you've used your best professional judgment.

I have explained where I am coming from—my angle—and I thank you for the research you folks put out. It's a great read, and it helps parliamentarians do their jobs better. It makes us think, challenges us and obviously gives us an opportunity to challenge you folks on occasion as well. Thank you very much.

I'll turn it back to you, Chair.

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

I'll now turn to Mr. Perkins.

**Mr. Rick Perkins:** Mr. Chair, I'll be splitting my time with MP Williams.

There are three contracts right now for production subsidies with three companies, totalling about $35 billion, on lithium battery assembly—not production but assembly. My view is that it's a $35-billion bet on the VHS of batteries, since Toyota and others are now producing a hydrogen internal combustion engine with no emissions, which can be fuelled in 15 seconds, so it's a big bet on old technology.

That aside, people have been very curious, I think, about what that subsidy actually is. The IRA sets out the battery subsidy, and that's a public document. It's my understanding that these three contracts mirror that year-over-year subsidy amount that's in the IRA. Is that correct?

**Mr. Yves Giroux:** That's also my understanding, based on the two contracts we have seen.

**Mr. Rick Perkins:** Okay.

On the IRA, it says clearly that between now and 2029, 100% of the cost of every EV battery produced—which, in this case, would be by Volkswagen and Stellantis—is subsidized by taxpayers. That's 100%. After 2029, that drops to 75%, and then in 2030 it drops to 50%. I think in 2032 it drops to 25%, and then to zero.

In essence, for five or six years, or between now and 2032, a large amount of battery assembly in Canada, based on the IRA public numbers, is being nationalized and paid for by the taxpayer, 100% up until 2029. Using your math and the U.S. IRA numbers, that looks like about a million batteries a year alone at Volkswagen, which is 40% of the cost of the vehicle. Those batteries are then shipped down to Tennessee for assembly.

Is that the way the math comes out on the 20-year payout?

**Mr. Yves Giroux:** First, I don't know for sure whether the subsidy will cover 100% of the production costs. The subsidy in the contracts is a “per unit of power” subsidy. The exact amount is in U.S. dollars. I don't know whether that covers the totality of the production costs, or whether the production costs will be higher. I presume the production costs will be higher than the subsidy. Hence, I'm not convinced that, as you say, taxpayers will be subsidizing 100% of the cost of the batteries.

Based on what we have seen in the contracts, and in the Trillium Network study, we estimate that the payback for these battery plants—their direct, indirect and induced benefits—should be recovered by increased taxes paid to the feds and the Ontario government over a 20-year period.

● (1745)

**Mr. Rick Perkins:** The IRA says it's 100% of the production of the battery for those years—until 2029—in that declining scale. It says 100%. It's pretty clear.

I'll turn the rest of my time over to Mr. Williams.

**Mr. Ryan Williams (Bay of Quinte, CPC):** Thank you very much, Mr. Giroux and colleagues. It's an interesting discussion.

I want to focus on the value chain on each side. We've talked several times, and our colleagues have talked, about value chains.

Why did your report exclude the battery value chain, in terms of discussing potential benefits? I guess the real question is this: Is there just not, presently, a value chain for critical minerals in Canada?

**Mr. Yves Giroux:** We didn't look at these other “nodes”, as they call them in the Trillium Network report, because, first, the Trillium Network report itself states that, for these other nodes to be created or expanded, it would require additional subsidies—they usually quote between 20% and 30%—plus additional infrastructure investment by governments. That's one reason.

The other main reason is that, even if the battery plants are established and operate in Canada, there is no guarantee in the contract that they will source their inputs from these other Canadian nodes being expanded or created. That's why we did not....

**Mr. Ryan Williams:** It's not a secret. A lot of the mined critical minerals in the world come from China.

Is that correct?

**Mr. Yves Giroux:** At the present time, a good chunk comes from China, depending on the specific types of minerals.

**Mr. Ryan Williams:** We're looking at value to the taxpayer. It was mentioned before that it's excluding 91% of the value chain. We're talking about an automotive industry that we want to be strong in Canada.

Where would these vehicles be produced? Would it be in the U.S.?

**Mr. Yves Giroux:** It will depend on the battery plants themselves. If it's Stellantis, they are probably going to be included in some vehicles produced in Canada. As for Volkswagen, to my knowledge, there's currently no EV assembly plant in Canada, and I am not aware of any plans to establish such a plant domestically.

**Mr. Ryan Williams:** Volkswagen or otherwise, in terms of headlights—I have a headlight company in my riding, Decoma Autosystems—tires, brakes and the steering wheel, did you look at that value chain? Are any of those going to be produced in Canada?

**Mr. Yves Giroux:** Some are being produced in Canada. Again, this is a highly integrated sector. As Mr. Masse alluded to, the same car can cross the border seven times before being fully operational or finished. That's an integrated value chain.

**Mr. Ryan Williams:** That's right.

It seems that, with Volkswagen, it is 100% in the U.S., whereas the battery is 100% in Canada. The value chain for that specific investment seems to be that Canada is only producing the battery for Volkswagen. Is that correct?

**Mr. Yves Giroux:** It could be only the battery. It could also be other components. I'm not aware of the intricacies. It depends on the specific models.

**Mr. Ryan Williams:** I guess we're looking for value back to the taxpayer—this is a large amount of money—as well as to industry, because we want the industry to do well. It seems as if the supply chain is just not developed.

I have another question.

It seems that, last week, Volkswagen cut production on two EV models. It seems as if demand is going down. In terms of your valuation of the value back from ISED and other officials...was that based on certain production estimates? If so, was that based on strong sales over a certain time? Were those estimates increasing every year?

**Mr. Yves Giroux:** It's based on the assumption that EV sales targets will be met in both Canada and the U.S. The 20-year payback period assumes both plants will continue to produce at full capacity even after the subsidies are no longer provided.

**Mr. Ryan Williams:** Given the fact that there is already news that plants are cutting production or not developing and selling the vehicles they thought they would, how does that reflect your opinion on this report?

**Mr. Yves Giroux:** That suggests that our 20-year payback timeline is probably still optimistic, given the risks of technological changes and the fact that there could be down periods for these plants, where they have to cease production for a period of time to retool or for maintenance, etc.

● (1750)

**Mr. Ryan Williams:** If these plants were finding that electric vehicles, for whatever reason, were not selling.... Did you include any possibility to retool for other technologies, such as hydrogen or regular hybrid vehicles?

**Mr. Yves Giroux:** No, we did not include anything like that for the period that the subsidies will be in force or after.

**Mr. Ryan Williams:** Thank you, Mr. Chair.

**The Chair:** I'll turn to Mr. McLean for one brief question.

**Mr. Greg McLean (Calgary Centre, CPC):** Thank you, Mr. Chair.

I have just one question. It follows up from a meeting I've had with your staff, Mr. Giroux.

Your numbers talk about a 20-year payback. I've tried to do the bottom-up. I know you're referring to the Trillium Network's numbers, but on a strict bottom-up analysis here, we're talking about, let's say, 2,500 jobs at an Ontario tax rate. That means about $40,000 max of taxes per year, which means $100 million per year in taxes. To pay back $15 billion in subsidies, $100 million per year in taxes means a 150-year payback, because I don't think there will be any corporate taxes paid by the likes of Volkswagen.

One hundred and fifty years is a far cry from the 20 years you've arrived at. Have you thought about splitting that difference and allocating some space to where the actual gap exists and how you actually come to a conclusion on that?

**Mr. Yves Giroux:** It's based on not only the direct impact, as you alluded to, which is the taxes paid by the employees of that plant, but also the indirect impacts from those who will be providing them with services and inputs into these plants, and the induced economic and fiscal impacts.

That's how we arrived at a 20-year time period.

**Mr. Greg McLean:** I have just a quick follow-up there.

Number one, these jobs don't come out of nowhere. They come out of the people who already live there. The induced benefits you're talking about are the inflation caused in the land and the businesses that happen in that area. We're talking about an inflation-causing event happening in the area.

The induced...how do you call it? With the supply chain here, every step of the supply chain is being subsidized by this government through a different program, so there are no real benefits down the supply chain whatsoever. As a matter of fact, there are costs. You can't include those in this analysis. They should be completely excluded from anything you're doing here as far as the benefits that are received back to the government go, because every one of those steps needs to pay back the government as well. We need that in the “induced” studies.

I know that wasn't a question. Have you considered that as part of your analysis?

**Mr. Yves Giroux:** I think you should have an interesting conversation with your colleague, Mr. Turnbull.

Yes, we have considered these things in good part. That was mentioned in my opening remarks. There are some issues we've taken with the statements that have been made over the payback period for this investment.

[*Translation*]

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

It is now Mr. Turnbull's turn.

[*English*]

**Mr. Ryan Turnbull:** Quickly, I'll just clarify again that almost 92% of the value chain was excluded from that modelling. I think that's where the key difference comes from. That's just to clarify that for Mr. McLean, because he wasn't here when we heard that testimony.

I just wanted to ask a question and clarify.

The Trillium Network report was written in September 2022, if I'm not mistaken.

**Mr. Yves Giroux:** Yes, that's what I understand.

**Mr. Ryan Turnbull:** You based a lot of your work on the IO model from that report. Obviously, you narrowed it to some degree and focused only on the node you decided to focus on, which I disagree with, but we've already had that conversation.

What has changed since September 2022? In my view, considerable things have changed since then. Could you just comment on any of those that might impact the model today, if you were to redo it?

**Mr. Yves Giroux:** The Trillium Network report was based on scenarios where there is one plant with a certain level of capacity. They had various scenarios including adoption of electric vehicles in Canada and in the U.S., and the establishment or the starting of operations of additional battery plants.

It was apparently a good enough report for the government to base its own estimates on with respect to the payback period. That's why we decided to look at that report and to try to analyze what was behind the government's statements that the payback would be in less than five years for the government.

I don't think that many things have changed fundamentally, and the government seems to think so too, because it based its decision to invest, apparently, on that report when it did decide in March and April, and again in July.

● (1755)

**Mr. Ryan Turnbull:** Government policy might have impacted the demand for EVs or the sales of EVs. I would just like to clarify that September 2022 is when Trillium Network did its report, but that was prior to the Government of Canada releasing its zero-emission vehicle sales targets and its regulations. It was also prior to the U.S. government announcing its GHG emission reduction targets and its regulations.

Is that not true?

**Mr. Yves Giroux:** I believe you.

**Mr. Ryan Turnbull:** Wouldn't those policies and regulations potentially impact the market conditions that would impact the overall outcome of your model?

**Mr. Chris Matier:** Thank you for your question.

In the scenario we looked at, those sales targets for Canada were consistent with the government's announced EV mandate for 2030, and we didn't go beyond to 2035 for the light-duty vehicles.

That sort of policy change would have been reflected in what we're calling scenario three, which is what the government used in its calculation for the break-even, so they would be consistent with that policy.

**Mr. Ryan Turnbull:** If I may just clarify, had the Trillium Network report that was done in September 2022, which you based your work on, already predicted the ZEV sales targets and the U.S. government policy that would come afterwards? It couldn't have. I my view, that would be anachronistic.

**Mr. Chris Matier:** They didn't predict it, but the assumptions they used are consistent with that policy. Maybe they had advanced information or had some targets in mind, but the target of, I believe, 60% of light-duty vehicles in 2030 is what they have as their sales target for Canada.

**Mr. Ryan Turnbull:** Was your model based on those assumptions, or did you model it as not meeting those government targets?

**Mr. Chris Matier:** For our estimate, we included that in scenario three, so it would be consistent with meeting those targets in 2030.

**Mr. Ryan Turnbull:** Thank you.

Thanks, Chair.

[*Translation*]

**The Chair:** Thank you very much. That brings the meeting to an end.

Many thanks to you, Mr. Giroux, for being so generous with your time this week, not once, but twice. Thank you to your team as well. I think today's discussion was very insightful for anyone looking to make up their mind on the probity of these major investments in the sector. We heard varied perspectives. You also did a good job defending your report. All of it was very informative.

The meeting is adjourned.