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Chair

Mr. John Aldag

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• (1535)

[English]

The Chair (Mr. John Aldag (Cloverdale—Langley City, Lib.)): I call the meeting to order.

I have been reminded that we can receive testimony with reduced quorum. We have four members, including two members of the opposition, so we will get started.

Welcome to our guests today. We have, from the Office of the Parliamentary Budget Officer, Yves Giroux, Parliamentary Budget Officer, and Jason Jacques, senior director, costing and budgetary analysis. Welcome to the committee today.

We'll get into your opening statement. We'll give you up to 10 minutes. Then we'll get into our rounds of questions and answers for an hour. In one hour, we'll end and go into closed session. That's how the day will go today.

Just so everybody is reminded, we had a motion brought forward that the committee schedule one meeting with the Parliamentary Budget Officer to discuss the recent report, "Fiscal and Distributional Analysis of the Federal Carbon Pricing System". That's the intent of the meeting today, and we'll spend one hour having that discussion.

With that, Mr. Giroux, I'll turn it over to you for your opening statement

Mr. Yves Giroux (Parliamentary Budget Officer, Office of the Parliamentary Budget Officer): Thank you very much, Mr. Chair and members of the committee. It's a pleasure to be here.

It's my first appearance before the environment committee. I have to admit that I'm a bit nervous seeing unknown faces and not knowing what to expect yet, but so far I have a very good impression, so I'm becoming less and less nervous.

Thank you for the invitation. I'm pleased to be here, as I said, for my first appearance to discuss the analysis of our report on the federal carbon pricing system, which was published at the end of April.

I'm joined by Jason Jacques, who is the director general in my office. Together we'll try to respond to your questions to the best of our capacity.

[Translation]

As you know, the Parliamentary Budget Officer provides parliamentarians with independent and non-partisan economic and financial analyses. As the legislation indicates, we provide those analyses to raise the quality of parliamentary debate and promote greater financial transparency and accountability.

In accordance with the mandate I have been given, my office has produced a fiscal and distributional analysis of the federal carbon pricing as implemented in Ontario, New Brunswick, Manitoba and Saskatchewan.

Our report provides an independent estimate of the revenues generated under the federal carbon pricing system. It also estimates the net fiscal impact on households in different income groups in the four provinces that do not have carbon pricing plans that meet federal standards.

[English]

Based on our analysis, we estimate that the federal government will generate \$2.6 billion in carbon pricing revenues in 2019-20. The vast majority of these revenues, \$2.4 billion, will be generated through the fuel charge, and the balance, roughly \$200 million, will be generated by output-based pricing. In addition, we estimate that by 2023-24, carbon pricing revenues will increase to \$6.2 billion, with fuel charge proceeds accounting for \$5.77 billion, and OBPS—which I much prefer to "output-based pricing", which I have a hard time pronouncing—accounting for the rest.

Our report also studied the impact of the carbon price on households, based on annual income level and region. Regions currently using carbon-intensive energy, such as Saskatchewan, can expect higher costs.

The federal government has stated that all proceeds from the fuel charge will be returned directly to households and to particularly affected sectors in Ontario, New Brunswick, Saskatchewan and Manitoba. Our findings indicate that under the government's proposed climate action incentive payments plan, most households will receive more than what they paid in fuel charges.

Before proceeding to your questions, I'd like to take a moment to inform the committee of our next publication. Tomorrow morning, we will be releasing our latest carbon pricing analysis report. This report will provide an independent estimate of the additional carbon price that would be needed to achieve Canada's greenhouse gas emissions target in 2030 under the Paris Agreement, as well as an estimate of the corresponding impact on the Canadian economy.

I don't typically use the full 10 minutes and I don't plan to deviate from that, as I would like to let you ask as many questions as you want. Jason and I would be pleased to respond to any questions you may have regarding our fiscal and distributional analysis of the federal carbon pricing system report or other PBO analysis, but I should state that I will probably be very reluctant to take questions from Mr. Fisher, given the jersey that he wears today.

Some hon. members: Oh, oh! **Mr. Yves Giroux:** Thank you.

● (1540)

Mr. Mike Bossio (Hastings—Lennox and Addington, Lib.): That's why we didn't put him on the list. We don't care for his jersey either.

Voices: Oh, oh!

The Chair: Thank you so much for your opening comments. We've actually been a fairly amicable working group over this term. We'll see if that carries through today.

I'd also like to welcome Mr. Chong as a guest to our meeting today.

With that, I will also mention that we use a card system here. When there is one minute left in the round of questions, I give the one-minute warning, and then when time is up, I give the red flag. I don't cut you off in mid-sentence. Just conclude your thought and we'll go on to the next round of questions.

First up, on the government side, we have Mr. Bossio for six minutes of questions.

Mr. Mike Bossio: Thank you, Chair.

Thank you so much for being here today. We've been waiting with anticipation to look at your report and hear what you have to say today. I look forward to hearing the answers to the questions.

This is such an important issue. As we've seen, there is much misinformation out there around the impact of the price of pollution that our government has implemented, with many trying to say that we have it wrong, that it's actually going to destroy our economy and kill jobs and bring an inordinate amount of devastation to the most vulnerable in our society. I'm happy to see in your report that you actually have confirmed what we have been saying all along: that most Canadians will be better off with a price on pollution. They will receive more in the rebate than they will pay out.

I'd like you to break down the numbers a little further. We hear it's not just those who are driving to work, but those who live in rural communities and the higher price of groceries and so on. Can you give us a sense of the different areas used in your analysis to make the determination that eight out of 10 Canadians will benefit more from the rebate than they will pay out in the price on pollution?

Mr. Yves Giroux: Sure.

Obviously we looked at the direct costs through higher fuel prices and higher prices on energy that households directly consume, such as the gas they put in their cars and the heat they need to generate in winter. God knows it's been long this year. We also looked at the higher prices for gas and for electricity generation in provinces where electricity is generated using fuel-based sources, such as Saskatchewan. We factored in these direct costs paid by households, but we also know, obviously, that most of the goods that Canadian households buy also have a fuel component to them.

For example, if you buy something at a supermarket, it's been transported to the supermarket. The transport that's inherent in these goods that people buy has a fuel component, so we used input/output tables to figure out how much carbon-based fuel is input in each production factor in each transaction, in each good that consumers buy, and factored that into the equation, assuming that all of the increases get passed on to consumers, which is consistent with the literature. We estimated the increase in the prices or the amounts that households will have to pay for some goods, as well as their energy consumption.

That's the payment side. On the other hand, we also looked at how much the federal climate incentive plan will reimburse Canadians, assuming that 90% of the proceeds from the charge will be reimbursed to households. We did that as an average, but we also looked at consumption patterns based on income quintile, and that's why we have different net impacts by income quintile.

Lower-quintile households obviously tend to spend less. There are fewer people in lowest-quintile households. Obviously, if there are two working persons in the household, the household tends to be higher up on the income scale. As you go higher on the income scale, you tend to find that there are more people in the household, and the larger the household, the more they tend to consume fuel-based products, as well as energy in general. That's how we derived the estimates that we have.

● (1545)

In summary, the conclusion is that the majority of households will receive more on a net basis than they will pay. The exception is the 20% of households with the highest income. They will be net contributors.

Of course, that's an average. It doesn't mean that every single household in the lower-income quintiles will be receiving more. It depends on the particular lifestyle and consumption patterns. That's a criticism that's been addressed to us, but obviously it's an average by income quintile and by province.

Mr. Mike Bossio: To recap, you've looked at both the direct and indirect costs of a price on pollution to the household. You have then looked at the average rebate that all households will receive, and based on that, the vast majority, eight out of 10 Canadians, will receive more on the rebate than they will pay out on the price on pollution.

Mr. Yves Giroux: That's correct.

Mr. Mike Bossio: I think I'm pretty much out of time, Chair. How much time do I have?

The Chair: You have 20 seconds.

Mr. Mike Bossio: Okay, I guess I'll leave it there, then. I will pick it up again.

Thank you.

The Chair: All right. Thank you.

I'll move over to Mr. Godin for his six minutes' worth of questions.

[Translation]

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

Gentlemen, first of all, I want to welcome you. Thank you for being here. Your jitters are long gone, Mr. Giroux.

Mr. Fisher, unfortunately, I'm not wearing my Blues sweater now, but I'd be happy if I were. We'll talk about it tomorrow morning.

Mr. Giroux, I have a question for you. I'm trying to understand. You are showing us a fiscal analysis. I know those are projections, but could you tell me what you used to estimate the costs and revenues by quintile, by province, per capita. It's quite complex.

What data did you use to obtain those results?

Mr. Yves Giroux: It is true that there are many figures and calculations in those data.

We first looked at household consumption by province and by income quintile. Those data are available from Statistics Canada, which regularly conducts surveys to determine household consumption patterns, in terms of energy, goods and services. Those data are important for determining household consumption by quintile and household make-up, meaning the number of adults and children, which helps to determine what carbon pricing will represent for the households. We already know the future cost of one tonne of carbon: between 2018 and 2022, it will increase from \$20 to \$50.

The impact of the increase on the prices of gasoline, natural gas and other carbon-based fuels can be determined with some degree of certainty. For example, we know that one litre of gasoline generates about 2.2 kilograms of carbon. So if the carbon price is \$20 per tonne, it is easy to calculate that it is 4.4 cents per litre of gasoline. That's how we get the price that consumers will have to pay.

To determine the net amount, we looked at how much consumers will receive in payments or discounts. In the last budget or in the fall economic update, the government announced the amount of rebates or refunds that will be paid to households. This amount is fixed and is not based on consumption, but on the make-up of the households. It will not be influenced by income. By looking at how much households will pay and how much they will receive, we get the net amount per quintile, of course.

As I mentioned, those are averages. It is possible that a household's consumption pattern may affect what the household will pay. For example, someone who uses their car a lot and heats their home with natural gas or oil will pay much more than someone who lives downtown, uses public transit or walks to work. There are differences within quintiles. That being the case, we came up with averages to provide an overall picture.

● (1550)

Mr. Joël Godin: According to your estimates, will GHGs remain stable, increase or decrease?

Mr. Yves Giroux: We looked at elasticity, that is to say the impact of a price on the tendency of households and businesses to use or reduce the use of energy sources. Greenhouse gas emissions will

decrease, but not drastically. They will decrease by 4% or 5%, I think —I don't remember the exact percentage—and this decrease will be largely due to the shift from electricity sources that emit greenhouse gases to more emission-neutral sources.

Mr. Joël Godin: If possible, I would like you to provide the committee with the model indicating the reduction in greenhouse gases by 2030.

Mr. Yves Giroux: Yes.

Mr. Joël Godin: Earlier, you mentioned the 90% of the revenues being reimbursed to the public. You said it was a fixed amount, clearly determined, that did not vary according to consumption. In addition, it would not be directly related to the amounts generated by the carbon tax.

Did I understand correctly?

Mr. Yves Giroux: I probably misspoke.Mr. Joël Godin: Unless I misunderstood.

Mr. Yves Giroux: Let's just say that I misspoke. I do that a lot.

Mr. Joël Godin: You have broad shoulders.

Mr. Yves Giroux: The amount is fixed for the current year, but the amount for subsequent years will depend on the total amount generated by the carbon tax. It will increase as the amount generated by the government increases.

Mr. Joël Godin: Since the amount will increase from \$20 to \$50 over the next five years, the envelope will expand, so to speak. The envelope will be allocated according to very specific criteria.

What criteria are used to determine that households in the lowest income quintile in Saskatchewan will receive \$117 more than it will cost them?

Mr. Yves Giroux: The amounts that will be paid in each province do not depend on income, but on the number of adults and children. The amount per adult and per child is fixed.

Mr. Joël Godin: I would like to ask a quick question.

If it doesn't generate that much money—

[English]

The Chair: We'll come back to you. We're out of time now. We're just over the minute here.

We're going to go now to Mr. Stetski.

Mr. Wayne Stetski (Kootenay—Columbia, NDP): Thank you.

I want to start by thanking you for the work that you do and the work that you're going to be doing in costing out platform pieces going forward. I very much look forward to that.

Did you have an opportunity to look across the country at all? I'm from British Columbia, and of course we've had a carbon tax in place since 2008. I've been trying to figure out, as a citizen of the province, whether the federal plan would be more beneficial to me than the provincial plan as it currently exists. Did you have an opportunity to look at the efficiency of some of the other plans that are already in place?

Mr. Yves Giroux: That was not part of our report. We focused on the four provinces that are part of the federal backstop. Two territories, I think, are also part of the federal backstop, but we also didn't look at these two territories because there's a lack of sufficient data for them. Unfortunately, I cannot tell you whether you would be better off in B.C. as opposed to the four provinces that we looked at, because we didn't look at the other provinces.

• (1555)

Mr. Wayne Stetski: When we were doing our study on climate change, we heard from farmers and people in the agriculture industry that there are certainly some reductions in carbon costs to them, but there were also other activities—such as drying grain, for example—that required a different kind of fuel that they were not compensated for. Did you have the opportunity to look by sector or business to see how farmers, for example, might fare under this program?

Mr. Yves Giroux: Do you want to answer that?

Mr. Jason Jacques (Senior Director, Costing and Budgetary Analysis, Office of the Parliamentary Budget Officer): I think the short answer to your question is no.

While our model does take into account the detailed information that's been collected by the government around large industrial emitters and intensive users, we didn't specifically look at things on a sector-by-sector basis. The motivation was primarily to look at things in a geographic basis and focus on the actual impact on households.

Mr. Wayne Stetski: Is that something you can do? Can you look at something like agriculture in general and decide whether there will be a net gain or cost under the program?

Mr. Yves Giroux: Yes, it's something we could look at.

If I'm not mistaken, the government has stated that it will exempt the agricultural sector. I may be on thin ice here, but—

Mr. Wayne Stetski: It would be some of it, yes, but there are other parts that aren't exempt.

Mr. Yves Giroux: It's something we certainly could look at.

Mr. Wayne Stetski: I appreciate that information.

On the rebates, 80% of families will receive more money than the tax will cost them. You've suggested that for wealthier people, potentially that won't be the case. Is that because of the way the program was designed, or is it by accident?

In other words, is this a progressive tax that benefits poor people more than richer people, or did that happen by accident?

Mr. Yves Giroux: I'm not sure whether it was by design or by accident. To be able to answer that with a high level of certainty, we need to ask the people who designed the incentive payment.

Looking at the numbers, I would say it's due to different consumption patterns. Poorer households have less money to spend, while richer households tend to have more people and spend more. They drive bigger cars, drive longer distances, have bigger houses that need more fuel for heating purposes, consume more electricity when the electricity is generated using carbon-intensive sources, and so on. Because of the different consumption patterns, richer households tend to have a bigger carbon footprint, so to speak.

Mr. Wayne Stetski: Basically, it's a result of lifestyle, potentially, and not necessarily because of program design.

Mr. Yves Giroux: Yes.

The Chair: You have about a minute and a half.

Mr. Wayne Stetski: I know you're not allowed to release information on reports before you release them, but could you just summarize again? I'm quite interested in this report that you're going to be releasing tomorrow. Did I understand that it's a report on how much carbon pricing will have to be in order to reach Canada's GHG reduction targets? Is that what it's going to be?

Mr. Yves Giroux: Yes, that's it exactly. Tomorrow's report will quantify the price that will have to be applied to carbon emissions between 2023 and 2030 in order for Canada to meet its targets under the Paris Agreement. How will a tonne of carbon have to be priced for emissions to be reduced sufficiently to meet the Paris targets?

That's what the report will be about, and it will look at the price that would have to be applied nationally. We know that between now and 2022.... Some provinces have put in place measures deemed sufficient by the federal government, while there are four provinces —and I believe soon to be five—that don't have a regime that meets the federal criteria. For simplicity's sake, and just for illustrative purposes, we looked at the carbon price that would be required to be applied nationally to virtually all sectors except agriculture for the country to meet its Paris targets.

Mr. Wayne Stetski: The timing is unfortunate. I'd love to be able to question that report as well. I guess we could filibuster right through until that report is released.

Voices: Oh, oh!

The Chair: Well, we will get back to you at the end, Mr. Stetski, and if everybody else respects their time, there might even be a little bit of extra.

We're going to go over to Mr. Bossio, and perhaps Mr. Amos, for the next six minutes.

(1600)

Mr. Mike Bossio: I just want to clarify a couple of things from our conversation earlier.

Once again, eight out of 10 Canadians are going to benefit more from the rebate than what they're paying out in a price on pollution. Is that for all provinces in which the federal backstop will be in place?

Mr. Yves Giroux: That's right. We looked at these four provinces because that's where the regime is the federal backstop, and it's the same in all four provinces. The other provinces have a different mix of measures that are different from the federal backstop and different in each province.

Mr. Mike Bossio: With all the revenue that is raised within those provinces, the rebate will go back to the province in which the revenue has been raised. Is that correct?

Mr. Yves Giroux: Yes, that's our assumption. Ninety per cent of the revenues generated will be returned to households, and the remaining 10% will go to particularly affected sectors. That's our understanding of the government's policy.

Mr. Mike Bossio: If I remember correctly, in your report you indicated that for even the wealthiest—the two out of 10 Canadians who will pay more—it would be on average of \$50 more.

Mr. Yves Giroux: I don't have the exact numbers in front of me at this very moment. Perhaps you would bear with me for a second, but yes, they will be receiving....

It depends on the jurisdiction. For example, in Saskatchewan, by the end of the period, when the price of carbon reaches \$50 a tonne, they will be paying, on a net basis, \$112 or \$113. That's the province where the richest households will be the most affected. In New Brunswick, the 20% at the higher end of income distribution will pay, on a net basis, \$14 per year.

Mr. Mike Bossio: We hear from Conservatives that average Canadians, low- and middle-income Canadians, will be punished by this price on pollution, that it will vastly increase their costs—I've heard \$800 and I've heard numbers up to \$5,000—and that they will pay above and beyond, but that is not what you found in your analysis.

Mr. Yves Giroux: On a net basis, no, but on a gross basis, we found that on average, the highest quintile in Saskatchewan, for example, will pay between \$585 and \$1,200 over the period that stretches from 2019-20 to 2023-24. That's on a gross basis. That's before the rebate.

Therefore, on a gross basis, it's true that households will have to pay more. Depending on their consumption patterns, it could be a few hundred dollars or it could be a thousand, but on a net basis, after the rebate, it is significantly less.

Mr. Mike Bossio: Or it might be nothing at all. They're actually going to gain—

Mr. Yves Giroux: Yes.

Mr. Mike Bossio: —on that rebate. That's eight out of 10 Canadians. It's a bit misleading, then, to say that this is going to cost Canadians, because they're not including the rebate portion of that analysis.

Mr. Yves Giroux: Well, the gross and the net are two different costs.

I'll let you use the adjectives or not, but....

Mr. Mike Bossio: Okay.

This is in relation to where Mr. Stetski was going at the end of his comments about your report tomorrow. I know you can't divulge any of the information in the report, but I want to ask one thing about it.

When you say you're looking at a price on pollution and the impact, or the amount it needs to get to by 2030 in order to meet our GHG emissions, is that taking into account the other 50-plus measures that are in place by government? In other words, will you be balancing that analysis across all measures that are being taken in order to meet that target, or are you using only this one measurement? If so, what is the value in doing that analysis if you're not going to take into consideration all of the measures that will be in place to deal with a GHG emissions reduction?

Mr. Yves Giroux: The report tomorrow will incorporate.... In computing or determining the amount necessary to reach the Paris targets, the report takes into consideration all the measures that were

in place or had been announced as of September 2018. We had to do a cut-off, because at one point we had to get the work going and input that into our model.

In any case, it will include the vast majority of the measures that have been announced or are already implemented.

(1605)

Mr. Mike Bossio: But there is an unmodelled portion of analysis by the government. I think it's either 76 megatonnes or 79 megatonnes. Have you been able to find the data sets that will take into account the unmodelled portion of those measures?

Mr. Yves Giroux: I'm not sure I fully understand the question. We should probably talk after we have released the report. I find it a bit difficult to speak in the abstract.

Mr. Mike Bossio: Okay.

Thank you very much. I appreciate, once again, your forth-rightness in answering the questions.

Mr. Yves Giroux: Thanks.

Mr. Mike Bossio: I hope we weren't too hard on you.

Mr. Yves Giroux: So far.

The Chair: Mr. Chong, we'll go over to you now for six minutes.

Hon. Michael Chong (Wellington—Halton Hills, CPC): Thank you, Mr. Chair.

When you did your analysis, you focused on just the federal backstop. In each of those four provinces, there are various provincial plans that have put a price on carbon, directly or indirectly. Can you tell us what revenues would be derived from those provincial revenues, from those provincial plans?

Mr. Yves Giroux: There are several measures in each of these four provinces. I know that. We have not quantified them, because the purpose of the report was to determine the accuracy of what the government had alleged, which was that individuals or households in the federally backstopped provinces would indeed be better off in most cases.

Hon. Michael Chong: Sure. Let me ask the question differently, then.

Collectively, in 2017 these four provinces had roughly 275 megatonnes' worth of emissions. What per cent of those emissions are covered by the federal backstop?

Mr. Yves Giroux: That's a very good question. I would assume that it's close to 100%, but I'm not certain, so I shouldn't put a number on it—

Hon. Michael Chong: Sure.

Mr. Yves Giroux: I should get back to you on this one.

Hon. Michael Chong: Okay, sure.

Here's my question.

When the government announced its pan-Canadian framework on clean growth and climate change in October of 2016, it also announced the price, starting at \$10 a tonne and moving to \$50 a tonne by 2022. The assumption at the time was that this would be an economy-wide price, a price not only across all economic sectors but also across the entire country, and hence when provinces stepped up to the plate, the federal backstop would kick in.

Let's use 275 megatonnes as the rough number for emissions from those four provinces. The effective price is quite a bit lower than that. If the backstop is covering almost all of the emissions in those four respective provinces, in 2019 you get an effective price of roughly \$10 a tonne across those economic sectors, and by 2022 you get an effective price of roughly \$25 a tonne, rather than \$50 a tonne.

I point that out as a disconnect between the price that was announced three years ago and what the effective price is. Most economists have indicated that they think Canada needs to go to an effective price of \$130 a tonne or more by 2030 in order to meet the Paris accord targets.

Mr. Yves Giroux: What we looked at includes the direct cost to households. It includes the output-based pricing system, whereby large emitters can trade among themselves, and if they go above the average for their sector, they have to pay the price on what's above that

You're right that it—

Hon. Michael Chong: I guess it's safe to say that the output-based pricing system has an effective price per tonne that's quite a bit lower than the price retail consumers would pay at the pump, for example.

● (1610)

Mr. Yves Giroux: That's a fair assessment, indeed.

Hon. Michael Chong: I don't have any other questions.

The Chair: Joël, there are still two minutes.

[Translation]

Mr. Joël Godin: Mr. Giroux, let me come back to what we talked about earlier.

If we do not generate enough money with the carbon tax, where will the government find the money needed to pay what I will call the "royalties to Canadians"?

My understanding is that that program funds itself, that 90% of the amount generated by the tax goes back to taxpayers and that they will receive more money than the estimated amount they will have paid. However, if your models indicate that you will not make the total amount required, where will you find the money to pay the rebates to taxpayers? Will you reduce them, or will you go elsewhere?

Mr. Yves Giroux: The federal model provides that the government will return 90% of the revenues generated by the tax to taxpayers. Those rebates are paid to taxpayers slightly in advance.

Therefore, if the total amount of rebates to taxpayers is higher than the amount the government is able to obtain through the tax, future rebates will have to be reduced accordingly to ensure that the 90% is met.

If the government ever decides to freeze the amount of rebates or still make the scheduled payments, there will have to be a mechanism to pay back the difference or make up the shortfall.

Mr. Joël Godin: I have one last, simple question.

In that study, have you measured the reduction in greenhouse gases in those four provinces?

Mr. Yves Giroux: Yes, we have measured it. We started from assumptions or data provided to us by, among others, the National Energy Board. I'm looking at a 22-page report and I can't find, unfortunately, the page where the reductions are mentioned. We have

Mr. Joël Godin: In your report?

Mr. Yves Giroux: No. I think I'm confusing that with the data report.

Mr. Joël Godin: Please continue.

[English]

The Chair: You can think about it. We do have one more round with Mr. Godin in six minutes, so we'll give you a chance to respond at that point.

We'll go over to Ms. Dzerowicz for six minutes.

Ms. Julie Dzerowicz (Davenport, Lib.): Thank you very much.

Thanks for your excellent presentation.

I'm going to ask you some fairly general questions, just because these are the questions that I hear at the doors and what my constituents ask, so it's nice for me to be able to play the answers back directly from those who are writing the report.

You've mentioned that 80% of households will get back more than what they pay in increased costs as a result of carbon pricing. Focusing just on Ontario, how much will they pay? We know how much they're going to get back in Ontario, but how much will they actually pay? If they're going to get back more, what is it that we've estimated that they'll pay?

Mr. Yves Giroux: Thank you.

In Ontario, we've estimated that starting in this current fiscal year, they will pay between \$131 for the lowest-quintile households and up to \$401 for the richest quintile.

Ms. Julie Dzerowicz: Four hundred and...?

Mr. Yves Giroux: That's \$401. Ms. Julie Dzerowicz: Okay.

That's in your report. It has listed how much they pay for year one.

Mr. Yves Giroux: Yes.

Ms. Julie Dzerowicz: Can you tell me the second and third quintiles as well?

Mr. Yves Giroux: Of course.

For the second quintile, it's \$179, and for the third, it's \$245.

Ms. Julie Dzerowicz: And the fourth one? **Mr. Yves Giroux:** The fourth is \$305.

Ms. Julie Dzerowicz: Perfect.

Mr. Yves Giroux: That's in the first year.

Ms. Julie Dzerowicz: Is there a difference between what they pay in rural and urban areas?

Mr. Yves Giroux: The cost is indeed different, and that's a question that we've received quite a lot, but we didn't distinguish between rural and urban. We distinguished just by province and by income quintile, because there would be additional complexities in trying to determine what's rural and what's urban. In the two extremes it's fairly easy—downtown Toronto or rural Ontario, let's say—but what about the suburbs and semi-rural areas? It gets a bit more complex, and we didn't go to that level of refinement in our study.

Ms. Julie Dzerowicz: When we're looking at what an Ontarian would pay—again, I'm in a downtown west Toronto riding, so I'm focused on Ontario—are you able to break down what they are paying for fuel or food or gas? Do you have main categories, and would you say that 20% will be an increase in food, or 30% will be additional fuel costs? Are you able to break it down in general?

• (1615)

Mr. Yves Giroux: Do you know?

Mr. Jason Jacques: We do. As part of the model, we did have that information.

As Mr. Giroux mentioned, we used Statistics Canada's inputoutput tables, as well as their surveys of household consumption. They allow us to see what households are consuming and see the implicit fuel embedded in each of those items that they're consuming, and then, in turn, to add on the additional carbon levy on top of that.

It's not something that we published in the report, but to the extent that there is additional interest, we can certainly take a look at reformatting some data tables and sharing those with the committee.

Ms. Julie Dzerowicz: I would love to get an idea, more or less, about whether it's going to be an increase in food prices, fuel prices or heating costs. That just gives me a really good idea about how to even prepare the people in my riding. That would be helpful to me, and if you'd be able to submit that to the chair and to this committee, I would be grateful.

The second part is that your report talks about large emitters and an output-based pricing system. One of the key things I hear, which I know is misinformation in my community, is that large companies or large emitters don't pay. Is that the case, or are large emitters paying through this output-based pricing system?

Mr. Yves Giroux: That's an interesting question that I asked myself when we first started looking at that issue, and it's a common comment that I've heard.

Under the OBPS, as I prefer to call it to avoid mumbling the words, the large emitters will have a baseline, so those that are more efficient than the average will have credits. Those that are less efficient and emit more will have to pay or buy the credits from those that are more efficient.

Smaller emitters that are not required to operate under the outputbased system will be able to participate if they want, and in the event that they are more efficient, they'll be able to sell their credits to large emitters that are not as efficient.

Ms. Julie Dzerowicz: Just for the general public's information, the large emitters are given a baseline for their emissions. If they produce fewer emissions than that baseline, they have some credits, and if they produce more, then they have to pay more. That is the output-based pricing system.

What is the reason we have this system for our large-emitter companies or that big companies around the world or within countries all have this system? Is it because it's a way for them to stay competitive? Why is there this particular type of system for large emitters?

Mr. Yves Giroux: That's a question that would be best answered by the Minister herself and probably the government in general. My understanding is that it's to avoid negatively affecting the competitiveness of big emitters.

To go back to your initial question, it is true that those who are at that baseline have a permit to emit at no cost. Those that are above the threshold will have to pay.

Ms. Julie Dzerowicz: Thank you.

The Chair: Mr. Godin, we will go back to you.

[Translation]

Mr. Joël Godin: Thank you, Mr. Chair.

In fact, Mr. Giroux, I will come back to what I mentioned earlier. I can understand that there may be some confusion between today's report and tomorrow's, but you can see that we are very interested and that we will read tomorrow's report carefully.

In the study you conducted, did you measure the effect of the measures on greenhouse gas reduction in those four provinces? I think that was one of the objectives.

Mr. Yves Giroux: Thank you for asking me this question again and allowing me to come back to it.

In this report, we measured the greenhouse gas reductions that would result from the price on carbon in those four provinces for the 2019-24 period. That reduction would range from 4% in Ontario to 15% in Saskatchewan.

Mr. Joël Godin: Do those figures appear in the document?

Mr. Yves Giroux: Yes.

Mr. Joël Godin: Can you give me the reference?

Mr. Yves Giroux: Of course.

It is on page 7 of the English version of the report, and on page 8 in the French version.

Mr. Joël Godin: Okay. Can you walk me through it?

Mr. Yves Giroux: Of course.

Figure 2-1 shows that both tax revenues and the price of carbon will increase significantly between 2019 and 2024. However, the price of carbon will increase by 150%, at a higher rate than revenues. This means that carbon intensity will decrease.

The percentages shown—15%, -7%, -4%, -6%, -6% and -6%—are those of the greenhouse gas reductions to be expected in each province. The most significant decline is in Saskatchewan because that province relies heavily on fossil fuels for its electricity. That dependence is lower in Ontario.

• (1620)

Mr. Joël Godin: Could we safely say that this program will allow an average reduction of 4% to 5% in greenhouse gases in the four provinces between 2019 and 2024?

We understand that Ontario has a larger demographic weight. The projected 4% reduction in this province may be larger in absolute terms than the 15% reduction in Saskatchewan.

Mr. Yves Giroux: In fact, this average reduction will probably be closer to 6% or 7%. The population differences between those two provinces are significant, but those in greenhouse gas emissions are less so. For example, a 15% reduction in greenhouse gases in Saskatchewan is still significant in absolute terms because the province emits more GHGs per capita than Ontario.

That said, the exact percentage remains to be determined.

Mr. Joël Godin: Will we have it in tomorrow's report?

I'm joking.

Mr. Yves Giroux: There will be other things in tomorrow's report.

Mr. Joël Godin: How much time do I have left, Mr. Chair?

The Chair: You still have two minutes.

Mr. Joël Godin: Okay.

We are talking about redistributing 90% of the revenues from pricing related to greenhouse gas emission to taxpayers. Where will the remaining 10% go?

Mr. Yves Giroux: The 10% will be returned to the sectors most affected by carbon pricing. I don't have the details on hand, but it's something—

Mr. Joël Godin: Is that already planned?

Mr. Yves Giroux: I'm not sure whether all the measures have been planned, but, in part, I think—

Mr. Joël Godin: The assistance will probably take the form of grants, right?

Mr. Yves Giroux: Yes, there will probably be grants to the sectors affected.

Mr. Joël Godin: I would like to talk about Table 1 of the summary of the French document.

Between 2019-20 and 2021-22, carbon pricing will be \$20, \$30 and \$40 per tonne, and in 2022-23 and 2023-24, it will be \$50. Rates are the same for both years, but it is estimated that revenues will decline in 2023-24. How do you explain that?

Mr. Yves Giroux: The pricing is indeed the same, but the carbon intensity or total emissions will probably decrease as a result of the price on carbon. Unlike in the years before, when emissions will fall slightly, the increase in the price on carbon will more than offset the decrease in emissions.

Mr. Joël Godin: You used the word "probably". These are models based on the hope that energy consumption and population will not

increase too much and that companies will not increase their production. So it's hypothetical.

Mr. Yves Giroux: They are forecasts and there is always an element of uncertainty. I can give you a very simple example to illustrate the uncertainty.

If the price of a barrel of oil drops to \$10 and the economy continues to do well, the price of gasoline will fall and the price on carbon will not have much impact. People will drive more and have less fuel-efficient vehicles because they can afford it more. Factors of that type can have a significant impact on forecasts.

Mr. Joël Godin: Have you made any comparisons with other countries that have implemented this sort of system to determine the effect it has had after five, six or 10 years?

Mr. Yves Giroux: Yes, we made comparisons with European countries that have a carbon exchange system and other countries that have implemented carbon pricing. We compared what happened in terms of consumer elasticity and reaction to those price changes and to a cap being imposed on emissions.

Mr. Joël Godin: Thank you.

[English]

The Chair: Great. Thank you.

We'll go over to Mr. Bossio for his last six minutes of questions.

Mr. Mike Bossio: This has been very interesting. Thank you so much.

Based on the testimony today, what we've heard is that it's going to cost less. Eight out of 10 Canadians are going to receive more in the rebate than they are going to pay out, and that's across all the provinces and all those areas.

We've talked about the actual impact on GHG reductions, in that a price on pollution is effective in reducing GHG emissions. We've talked about not just the reduction in those emissions but also about the intensity of those emissions. As the economy grows, the population grows, yet GHGs aren't just dropping in general but are also dropping in relation to the actual growth in those other areas, and the intensity is dropping even further as we go along.

You're saying it depends on the location. It could be 4% in Ontario, 19% in Saskatchewan, but that's because Saskatchewan has a much higher carbon intensity as a province. Overall, you have modelled that by 2023-24, it's going to lead to a 6% to 7% reduction in overall GHG emissions. That's not even projecting out to 2030 in the other areas that you model.

Would you agree, then, with most economists out there that a price on pollution is a cost-efficient and effective way to reduce carbon emissions?

• (1625)

Mr. Yves Giroux: As an economist, I'm certain that the more expensive something becomes, the less demand there will be for it.

Is it an effective way? It is certainly an effective way. I'd say it's not the only way. As all people in the field know, there's also regulation. That's one way, and subsidies are another way, but generally speaking, the consensus among economists is that a broadbased price on carbon is the least disruptive way to reduce greenhouse gas emissions.

Mr. Mike Bossio: Even though people are going to receive more back than they're paying out, it's still efficient. Even though they're not feeling the expense necessarily, it's still an efficient way to do it. It's still the most price-effective. It's the best market mechanism that can be used to reduce GHG emissions.

Mr. Yves Giroux: It's certainly one way. It's a way that is less disruptive to the economy and it's more transparent than other ways.

Mr. Mike Bossio: That's based on your models, and those models are based on generally accepted economic principles and what you have seen in other markets around the world.

Mr. Yves Giroux: Yes.

Mr. Mike Bossio: Then you have good evidence to back that up.

We were speaking earlier about the other 50-plus measures that are going to go into trying to deal with a price on pollution. As I said, 79 megatonnes were implemented in the modelling that was done by the government, but there are also unmodelled measures, such as investments in clean tech, the strategic innovation fund, the electric vehicle rebates and public transit. You said you were taking those 50-plus measures into account. Does the report that you're releasing tomorrow include those measures as well?

When the environment commissioner came out with her audit, we heard that it's going to take three, four or five years to really understand the true impact of a lot of these measures.

Mr. Yves Giroux: I cannot speak for each and every one of these measures, but we have taken into consideration the policies that had been announced as of September 2018. I cannot determine whether we have taken into consideration all of the potential measures under the strategic innovation fund, because some of these measures are specific measures and specific investments still have to be made.

It's the same with public transit. Some of the investments for public transit will reduce greenhouse gases, but it's difficult to determine the extent to which they will do that before the specific projects are known and before the ridership is projected or can be assumed.

We have taken the broad measures into consideration, but with regard to the specifics such as the ones you mentioned, probably not. It would be very difficult and risky.

Mr. Mike Bossio: Based on your models, has the OBPS been shown to be an effective measure in incentivizing businesses to reduce their GHG emissions so that they receive credits instead of having to buy and pay for them?

• (1630)

Mr. Yves Giroux: We haven't looked at the effectiveness of the OBPS. We have looked only at the revenues that it will generate. We have not pronounced on or carefully looked at whether it is an effective, or even a cost-effective, way of reducing greenhouse gases.

Mr. Mike Bossio: Finally, whether the revenues continue to increase or not, 90% of those revenues are still going to come back to residents within the province in which those revenues were collected. As was discussed earlier, this is what we hope for. As we grow, emissions are reduced, so the revenues generated from those emissions are going to flatline and then reduce as well.

This is a good a thing. The intent behind this system in the first place is to incentivize those changes in behaviour and to invest in innovation in order to reduce GHG emissions.

Mr. Yves Giroux: Our assumption is that 90% of the revenues will continue to be returned to households, and 90% of our declining pie will be smaller, obviously.

Mr. Mike Bossio: So will the cost-

The Chair: We're out of time.

Mr. Mike Bossio: Thank you.

The Chair: Now we're going to go over to Mr. Stetski. He will have the last round of questions, and he has three minutes.

Mr. Stetski, it's over to you.

Mr. Wayne Stetski: I think you've answered it, but people I talk to always have two questions. One is whether there is evidence that having a price on carbon will reduce GHG emissions. I think you've answered that, but I'd like you to speak to it again.

Second, as the price goes up.... I'll use a simple model. If somebody is paying \$100 now because of the carbon tax and they're getting \$110 back, if they ended up paying \$200, do they potentially get a rebate that is the equivalent, so that they might get \$220 back? Is there some sort of a magic number on the price of carbon, such that it starts to negatively impact even those 80% of families along the way?

Those are the two questions.

Mr. Yves Giroux: On the second part, because of the mathematical link between the revenues generated and the rebate, I cannot see very many scenarios where individuals would be worse off. There would be very few scenarios in which that would be the case. It would occur if there were no exports, for all intents and purposes. In that case, the exports part would not be generating any revenues. Given that households would receive 90%, they would pay on a net basis.

I'm sorry; what was the first part of your question again?

Mr. Wayne Stetski: It was on evidence showing that having a price on carbon does actually reduce GHGs, from your perspective.

Mr. Yves Giroux: Yes, there is evidence that a price on carbon does reduce greenhouse gases. The debate—and I'm not the one who will settle that debate—is whether it's too high a price to pay to reduce greenhouse gases or whether it's acceptable. It's up to people such as you to determine that. However, there is evidence to show that if you put a price on greenhouse gas emissions, all other things being equal, emissions will tend to go down.

The issue is whether you have to put a low price or a very high price. It is not always an immediate response. It involves capital expenditures, and people have fixed assets that they replace, so the time lag to respond to that signal can be long, but it does, indeed, reduce greenhouse gas emissions.

Mr. Wayne Stetski: And as long as 90% of it is being returned, if the price doubles, there is still net benefit to the majority of families in Canada if they're under this particular pricing scheme.

Mr. Yves Giroux: Yes, but at such a level, there would start to be disruptive impacts for some industries, those that are carbon-

intensive. The higher you go on that price, the more disruptive it becomes.

The Chair: Great. That concludes our session with you.

Thank you so much, both of you, for being here. I know you have another team member who has joined us today. Thank you for being here and for the very important work you do on behalf of Canadians.

With that, we're going to suspend for a couple of minutes and move into a closed session for some business.

[Proceedings continue in camera]

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