HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

Standing Committee on Environment and Sustainable Development

ENVI • NUMBER 139 • 1st SESSION • 42nd PARLIAMENT

EVIDENCE

Monday, January 28, 2019

Chair

Mr. John Aldag

Standing Committee on Environment and Sustainable Development

Monday, January 28, 2019

● (1545)

[*English*]

The Chair (Mr. John Aldag (Cloverdale—Langley City, Lib.)): Good afternoon, everyone, and welcome back. This is our first meeting of the environment and sustainable development committee in the new year.

Before we get started, I would like to welcome Mr. Shipley, who is a guest with us today, and Ms. May, who is joining us.

Welcome, Elizabeth.

Ms. Elizabeth May (Saanich—Gulf Islands, GP): Thank you, Mr. Chair.

The Chair: Welcome to our witnesses. We're really glad that each of you could be here with us today.

The way we work is that each of you will be given 10 minutes for your opening comments, and then we'll go into a round of questions, generally six minutes from each member, rotating among the various parties.

I use a card system. When you have one minute left, I will give you the yellow card. That's just a warning to be ready to start wrapping it up. That includes both time during your statements and during the question and answer period. When you get to the end of the time period you have been allotted, I will give you the red card. You don't have to stop mid-sentence, but when you get the red card, just wrap up your thoughts, and then we will move on to the next round of questions.

This is a continuation of a study we were working on before Christmas. It was on international leadership. The request or discussion from the committee was that we wanted to have a bit of time, so we're allocating four hours to discuss pricing pollution. That's really the theme today, under the context of international leadership.

As we get to each of you, I will introduce you.

Mr. Leach, would you like to start? I believe you're appearing today as an individual. With that, please start with your 10-minute opening statement.

Dr. Andrew Leach (Associate Professor, Alberta School of Business, University of Alberta, As an Individual): Thank you very much, Mr. Chair and members of the committee.

[*Translation*]

Thank you for inviting me today.

[*English*]

It's a pleasure to be here to make the case in favour of carbon pricing and to dispel some of the myths I think we've seen out in public on these policies.

By way of introduction, I'm an associate professor at the University of Alberta, where I teach in our energy and the environment program. For context, I've previously served as visiting scholar at Environment Canada, in 2012 and 2013, and as chair of Alberta's climate leadership panel, in 2015. So I think that makes me the only person who's worked on climate policy under Rachel Notley and Stephen Harper. Since 2016, just for your reference, I've also contributed some analysis to the federal carbon pricing program we're discussing in part today.

With that in mind, the fact that we are here today is a bit telling. Despite the fact that carbon pricing has been in place in Canada for 10 years or more in various jurisdictions, we're still seeing a discussion that relies a lot on staunch opposition and misinformation about these policies.

Despite this, there's near unanimity among economists that imposing a price on carbon is going to deliver emissions reductions at the lowest overall cost to the economy. You've probably heard this over and over again as people present to you. Let me put some clarity around why that is, and you'll probably hear the same message from my colleagues here as well. It's because leveraging the market allows individuals and firms to make decisions not just about how and when to reduce emissions, but also about how and when to emit. It allows those with the most information about the value of those emissions to make decisions as to whether or not to pay the carbon price. We know from principles of economics that to derive the maximum benefit from these policies, we want to apply them as broadly as possible across the economy.

With that in mind, I'd like to address, in my opening statement, a few of the common questions and myths that we see out there about carbon pricing.

I think the one that is most common today is probably the question of why we should tax consumer emissions or deal with the consumers at all. We see Canada's emissions often being painted, from all sides, really, as a large industry issue. I think the most recent incarnation of this is Premier Ford's call to penalize polluters, not commuters. Here's the problem with that. Nationally, about two-thirds of our emissions come from small emitters—buildings, houses, people, factories, etc.—not from large industrial facilities. In some provinces, that share is going to be over 90%. If you have a policy that exempts these emissions or only partially addresses them, that means you're going to end up with more expensive overall emissions reductions and punitive costs on a few industries.

What about impacts on low-income Canadians? Certainly, from our experience in Alberta, that was really important to the Government of Alberta, not to implement a policy that was regressive. Similar concerns come forward for rural residents. As economists, we acknowledge that carbon taxes may be, although not necessarily, regressive, and the concerns about impacts on households or rural regions are real. We need to keep our minds on that, that assessing distributional impacts is important, but also realize that, where these policies have been implemented, the use of carbon tax revenues has mostly been able to offset those concerns through lump-sum rebates, fiscal benefits, etc. With that in mind, though, we must also be careful not to claim that those rebates or transfers are sufficient to make everyone better off. They're not. There are still going to be those in every income group who are made worse off by the policies.

Another thing we must be careful to recognize is that even though the rebates are provided, this does not take away from the effectiveness of the carbon price. The price still applies on emissions. That's what changes behaviour: not the fact that people's disposable income decreases, but that the relative prices change. I do notice occasionally that those who have a lot of concerns about regressive impacts tend to become very concerned with redistribution of revenues to address those concerns as well.

Next, we have concerns about large industries, and in particular competitiveness impacts on trade-exposed sectors. I know you're interested in global aspects of carbon pricing here as well. I think that, first, we need to recognize that these concerns are real and that they particularly affect our resource-dependent provinces, including my home province of Alberta. But here also, economics research gives us a clear solution, which is allocating emissions credits on the basis of output and doing that with a carbon price, so that you don't reduce the overall profitability of the sector but maintain the price signal that exists on emissions and provides firms a reason to innovate. Not surprisingly, those with concerns about competitiveness also have concerns about these allocations, and we've seen, for example, the Leader of the Opposition calling them exemptions.

That's actually the area of a lot of my research, which is to look at “Does this behave the same as an exemption?” The answer is no, it does not. For example, for oil sands firms, you would see those firms capturing the same benefit from an emissions-reducing technology under a carbon tax or a carbon price with output-based allocations as they would from a carbon price alone. That wouldn't be the case if it were a straight exemption.

Relating to innovation, we see a lot of claims. I'll draw an example. We saw in the New York Times in December the U.S. Senate environment committee chair arguing that making energy as clean as we can as fast as we can without raising costs to consumers will be accomplished through investment, invention and innovation. This is pretty common. We see these put up as essentially a dichotomy: that we should either price carbon or innovate. I'd like to say that this is really a false dichotomy. Economists—David Popp is a great example of this—consistently find that price-based policies provide better incentives for innovation than do regulations, and they come without the expense of direct subsidies.

Lastly, does this mean that carbon pricing is a panacea or the only option available to us? Absolutely not, and it shouldn't be painted as such. Regulations, subsidies and other policies can have and have had large impacts on emissions. What the evidence tells us is that if you want to reduce emissions at the lowest total cost to the economy and provide the best stimulus to innovation, you do so through a carbon price.

Thank you for welcoming me here today.

● (1550)

[*Translation*]

I'm ready to answer your questions.

Thank you.

[*English*]

The Chair: Thank you.

Now we have Mr. Rivers, who is also appearing here today as an individual.

We'll jump right into it with your 10-minute opening statement.

Dr. Nicholas Rivers (Associate Professor, University of Ottawa, As an Individual): Thanks very much for inviting me to speak to you about international leadership and pricing pollution.

I am an environmental economist who studies the design of climate change policies. My research has touched on the cost-effectiveness of alternative climate change policies, the impacts of climate policies on the distribution of household income and the impacts of climate policies on greenhouse gas emissions. My comments today are based on that body of research.

l'd like to start by pointing to the overwhelming consensus among economists that the best way to tackle climate change is by imposing a price on carbon emissions. As you probably know, economists are not noted for agreeing with one another, so the recent statement by U.S. economists supporting carbon pricing, published in The Wall Street Journal, is notable due to the remarkable consensus on the issue. The statement in support of carbon prices is signed by all four living former chairs of the U.S. Federal Reserve, by 27 Nobel laureate economists—that's virtually every single living Nobel economist—and by 15 former chairs of the Council of Economic Advisers, among others. Similar statements have been made by Canadian economists, again representing a very broad cross-section of the profession. Similarly, in a poll of leading economists by the Chicago Booth School of Business, not a single economist disputed the idea of imposing a carbon price.

Economists consider a price on carbon to be the best approach to tackling greenhouse gas emissions, because it leverages the invisible hand of the market in reducing emissions. Without a carbon price in place, individuals and businesses have no incentive not to emit. They can use the atmosphere as a free waste dump. With an appropriate carbon price in place, individuals and businesses are given incentives to reduce their emissions. Likewise, a carbon price provides entrepreneurs with incentives to direct their research efforts toward low-carbon technologies. That helps make it cheaper in the future to reduce emissions, just as Andrew was saying.

Importantly, a carbon price provides lots of flexibility by allowing individuals and businesses to tailor their response to their own situation. This is a key feature that separates carbon pricing from a regulatory approach to reducing greenhouse gas emissions, and it is why carbon pricing is considered a much more cost-effective approach to reducing greenhouse gas emissions than a regulatory approach.

I'd like to take my time with the committee to bring up two points related to my research on carbon pricing. First, there is evidence that carbon pricing works and does reduce greenhouse gas emissions. Second, the economic costs of a carbon price are modest.

On the first point, evidence is now accumulating from jurisdictions around the world that have imposed carbon prices. This evidence shows that carbon prices have succeeded in reducing emissions. I have studied the case of British Columbia, which first imposed a carbon price a decade ago. My research shows that the $30 per tonne carbon price has reduced gasoline consumption and emissions by about 8% from where it otherwise would have been without the tax. At least three other studies using different data sets and approaches report very similar findings. Other studies have found similar impacts of the British Columbia carbon tax on diesel consumption and on residential natural gas consumption.

ln Alberta, carbon pricing has already substantially reduced emissions from electricity generation. Across the ocean, carbon pricing has been employed to reduce emissions from transport in Sweden, and to reduce emissions from industry in France, Germany and the United Kingdom. Just as in British Columbia, research on these cases shows that carbon pricing has reduced greenhouse gas emissions in the covered sectors. Of course, this shouldn't come as a surprise. When the price of something is increased, individuals and businesses consume less of it.

The second point l'd like to make concerns the economic impact of carbon pricing. ln places where a carbon price has been employed for some time, it is not possible to observe any impact of the carbon price on economic output. Either there is no impact, or else the impact is too small for us to measure. For example, British Columbia has had a carbon price for a decade, and over that period its economy has grown faster than that of every other Canadian province.

Economists have also conducted hundreds of modelling studies trying to estimate the potential impact of carbon pricing based on computer models of the economy, and here again there is substantial consensus. The impact of a carbon price on the economy will be very small. For example, the Stanford Energy Modeling Forum recently convened a dozen different modelling groups to estimate the potential impact of a carbon price, and all of them reported that the impact of such a policy would be very small, even if the tax level was raised substantially over time. A significant body of research also tells us that carbon pricing will be less costly than other approaches to reducing greenhouse gas emissions.

Overall, in my view, the carbon pricing approach chosen by the federal government is very well supported by the available evidence. lt will reduce emissions at very low overall cost to the economy and at lower cost than the competing approaches.

● (1555)

The approach Canada has adopted builds on 15 years of international experience with carbon pricing. It places Canada in the vanguard of jurisdictions that are seriously trying to tackle carbon emissions.

I offer one point in closing. While the evidence is clear that carbon pricing reduces greenhouse gas emissions, it is also clear that the level of carbon price currently adopted is not sufficient to reach our long-term environmental goals. A key focus for government going forward should be in building on this approach and clearly identifying the policies that will help us to dramatically reduce our emissions of greenhouse gases by mid-century and onwards.

Thanks very much for your time.

The Chair: Thank you.

Our next opening statement will come from Dale Beugin from Canada’s Ecofiscal Commission.

We'll turn it over to you for your opening comments.

Mr. Dale Beugin (Executive Director, Canada's Ecofiscal Commission): Thank you very much for the opportunity to speak to you today about carbon pricing. I represent Canada's Ecofiscal Commission, a group of leading economists from across the country. The Ecofiscal commissioners are also supported by an advisory board with representation from across the political spectrum.

Through multiple research reports, Ecofiscal has strongly recommended carbon pricing as the most cost-effective approach to reducing greenhouse gas emissions in Canada. Let me structure my remarks today around expected outcomes of carbon pricing relative to other policy options and other possible approaches.

The first area is environmental impacts. As we know, the main objective of climate policy is to reduce greenhouse gas emissions. To be clear, policy is required to achieve this objective. Absent policy action, our emissions will continue to increase and we will not meet our national objectives. Those emissions will contribute to global climate change, the costs of which will likely be very large. The recent national climate assessment in the U.S. highlighted global impacts and very large economic costs. Similar impacts might be expected in various sectors in Canada.

Both economic theory and policy experience are very clear that carbon pricing is effective in reducing greenhouse gas emissions. Carbon pricing creates incentives for businesses and emitters to avoid paying the price by taking action, whether that's adopting technologies or changing behaviour, to do so. In the longer term, it also increases the value of new emerging technologies that reduce more emissions at lower cost. As a result, as Professor Rivers indicated, carbon pricing can be a powerful driver of low-carbon innovation over time.

In practical experience terms, in B.C., according to rigorous research by various economists, we know that greenhouse gas emissions would be 5% to 15% higher if B.C. had not implemented its carbon tax. It reduced emissions from where they would otherwise have been. Early evidence also suggests that Alberta is shifting away from coal-fired electricity, in part in response to that carbon price. There were similar outcomes in the United Kingdom with their electricity system, and deep improvements in emissions intensity in Sweden, where they've had carbon pricing for a long time.

Notably, other policies can reduce GHG emissions. Regulations can require specific outcomes, whether through performance standards requiring levels of emissions intensity at a firm or sector-level basis, or even through requiring the adoption of a specific technology. Subsidies can also reduce emissions. They can use public dollars to provide incentives for emitters to adopt emission-reducing technologies, processes or behaviours.

Importantly, however, while all those instrument options can reduce emissions, they don't compare similarly in other interventions. Overall economic impacts are a great example. Carbon pricing can achieve a given level of emissions reductions at the lowest possible cost relative to those alternatives. The reason it does so is that it creates flexibility for emitters. Individuals and businesses can make their own choices about how and when they reduce greenhouse gas emissions to avoid paying that carbon price. That's why economic analysis finds that the impact on the economy, even of high carbon prices, is likely to be very small. Ecofiscal's own modelling projects strong economic growth under a carbon price in Canada that rises to $100 per tonne by 2027. No matter how that revenue is recycled back to the economy, growth remains strong and positive. Impacts on growth are very modest at most, and negligible in several of those scenarios.

B.C.'s carbon price has existed since 2008, and B.C. has some of the strongest growth in the country. The carbon price is not the reason for this performance, but B.C.'s experience does show that carbon pricing has not prevented strong economic growth in B.C.

What about those other policies? Subsidies are more expensive than carbon pricing for three reasons. They require governments to pick winners, choosing the technology or activities to be subsidized. Government is not always good at making those choices, and it is less good than the market at doing so. It also requires public dollars to fund those subsidies, which requires increasing taxes or reducing other government services. Finally, those subsidies are often paid to emitters who would have taken the action anyway, even in the absence of the subsidy. For example, Ecofiscal's analysis has found that subsidies for electric vehicle purchases cost about $400 per tonne of CO2 reduced. Part of the reason is that the subsidy was paid to purchasers of EVs who would have bought the EV even with no subsidy or with a much smaller subsidy.

Regulations tend to be more expensive than carbon pricing because they rely on government, not the market, to identify means or sectors or timing for reducing emissions. Flexible regulations, if implemented optimally and designed to rely on market mechanisms similar to carbon pricing, can come close to performing as carbon pricing does.

● (1600)

Here is one more example. Ecofiscal's analysis found that, historically, combinations of regulations and subsidies for ethanol cost around $180 per tonne of emissions reduced. Again, they supported specific technologies rather than being agnostic as to where and when emissions were reduced.

With regard to impacts on business, well-designed carbon pricing can reduce emissions while also protecting the competitiveness of Canadian businesses, even while some of our trading partners do not price carbon. Ecofiscal's analysis suggests that output-based carbon pricing can create incentive for industry to reduce greenhouse gas emissions by improving emissions performance, not by reducing production or shifting investment to other jurisdictions. This is the approach pioneered in Alberta under the specified gas emitters regulation and subsequently improved under the carbon competitiveness incentive regulation. It is also the approach being proposed in the federal backstop.

Carbon pricing provides advantages for businesses over other approaches such as regulations because it is simple and transparent, and it's also flexible, non-prescriptive and cost-minimizing. Perhaps for these reasons, the Canadian Chamber of Commerce recently indicated that it supported carbon pricing rather than regulatory approaches to drive a low-carbon transition in Canada.

With regard to impacts on households, when considering net impacts of carbon pricing on individual households, we have to consider the impacts both of carbon price and of the use of revenue generated. Credible analysis from the federal government finds that for 80% of households, rebates would exceed carbon costs under the backstop carbon pricing policy. Notably, these rebates would not undermine the incentive to reduce emissions. The rebate is independent of the carbon price itself. Emitters can reduce their emissions and generate that tax rebate. Finally, carbon pricing can also be designed to be fair. Rebates to households can ensure the policy does not disproportionately affect low-income households.

What about those other policies? Importantly, those other policies also have costs for households, though they would not have the benefits from revenue recycling. Regulations impose indirect costs on households, as businesses will pass on the costs that they require under regulations. As we noted before, to achieve a given level of emissions reductions, regulations would require greater overall costs than would carbon pricing.

Similarly, subsidies require additional revenue. That means either reducing other government spending or generating new revenue through new taxes, which will impose costs on the economy and also impose costs on households.

Let me sum up with these points.

Carbon pricing works. It is the most cost-effective policy option available to reduce greenhouse gas emissions. It can and should be designed to protect business competitiveness but also to ensure fairness for low-income households.

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

The Chair: Thank you.

We'll move on to Mr. Mark Cameron, executive director with Clean Prosperity.

Mr. Mark Cameron (Executive Director, Clean Prosperity): Thank you.

I'd like to thank the committee for inviting me to appear this afternoon with such a distinguished group of fellow witnesses. I'm the only person here today who's not an economist. However, I have spent a lot of time in committee rooms like this over the years as a staffer to MPs and ministers, so I suppose I'm here to provide simultaneous translation from “economese” to English.

Canadians for Clean Prosperity is a not-for-profit organization that promotes market-based solutions to environmental challenges. In particular, since our foundation five years ago, we've been advocates of revenue-neutral carbon taxation as the best response to the challenge of climate change for the reasons that my fellow witnesses have given. We've also been active in the debates over carbon pricing across Canada, at both the federal and the provincial levels.

Today I want to talk about why carbon pricing, and the current federal approach with the carbon pricing backstop legislation, is so important and how it can help contribute to the international search for answers to climate change.

I note that the committee is studying the international leadership component of the pan-Canadian framework. I want to suggest that what Canada is doing with carbon pricing under the framework, and the federal backstop legislation that ensures its consistency across the country, is in fact an internationally significant precedent.

If Canada succeeds over the next few years in bringing together a national carbon pricing framework supported by the backstop, we will position ourselves as leaders internationally, and there is good reason to think that other jurisdictions, especially the United States, will take notice. If, on the other hand, our attempt to build national-scale carbon pricing falls apart due to politics, then Canada will serve as a warning lesson about the difficulty of carbon pricing, which may discourage further international action.

As you know, there are several different forms of carbon pricing, and Canada has had some experience with almost all of them.

First, there is a straight carbon tax, generally charged on all fossil fuel combustion, which British Columbia was a pioneer in implementing. In many ways, the B.C. carbon tax brought in under former premier Gordon Campbell is the textbook model of how a revenue-neutral carbon tax is supposed to operate. It has been extensively studied, including through the work that Dr. Rivers and others have done.

Second, there is cap and trade, where a jurisdiction-wide cap is set on emissions and where firms need to purchase allowances, usually through an auction, in order to emit. The European trading system and the Western Climate Initiative, based out of California, are two of the most prominent examples. Quebec is—and, until recently, Ontario was—a partner in WCI and brought this model of cap and trade to Canada.

Another variant is sometimes called “baseline and credit”, where firms are given a baseline level of allowable emissions, often based on the intensity of emissions as compared to their industrial sector. Depending on whether their emissions are above or below the baseline, they either have to purchase credits or can earn credits.

Alberta's specified gas emitters regulation, brought in under the Conservative government there in 2007, was an example of that. The current carbon competitiveness incentive regulation, which was designed with the help of fellow panellist Andrew Leach, and the federal output-based pricing system for large industry are based on this model. I'd add that both the Saskatchewan and the Ontario governments have very similar proposals for their industrial carbon pricing. Today, Saskatchewan actually has in place an output-based pricing system at $20 per tonne for its industrial sectors.

Yet another variant of carbon pricing is sometimes known as “carbon fee and dividend”. Under carbon fee and dividend, which is really a variant of carbon tax, a carbon fee is charged on all combustion emissions. The resulting revenue is then returned by government as an equal per capita dividend to all the citizens of the jurisdiction.

This model has had quite a lot of popular, grassroots support and some political support in the United States. Two organizations, the Citizens' Climate Lobby and the Climate Leadership Council, have been active proponents of the fee and dividend model. Several bills with bipartisan support have been introduced into the U.S. Congress based on fee and dividend models, although so far none have actually made it to a vote in the House of Representatives or the Senate.

In early 2018, a number of prominent American leaders and major corporations put their support behind a carbon dividend plan promoted by two former Republican secretaries of state and treasury, James Baker and George Shultz. If there is any type of carbon pricing that has a chance of succeeding politically in the United States with bipartisan support, it would likely be some version of a carbon fee and dividend system. The closest thing we have to a carbon fee and dividend system in the world today is the federal carbon pricing backstop legislation. It charges a direct fee, the fuel charge, on all fossil fuel emissions in provinces that fall under the backstop, and, by law, the federal government is required to return all revenue to the province or territory that it is collected in.

Last fall, the federal government announced that 90% of the fuel charge revenue would be returned directly to households as direct rebates, which would be equal per capita for the first tax filer in every household, with proportionate amounts for the spouse, or second filer, and dependent children. The remaining 10% would be redistributed to small business, schools, hospitals, and other organizations facing the carbon price.

Analysis, including research done by my fellow witness Dave Sawyer for Canadians for Clean Prosperity, shows that this kind of fee and dividend system would leave most households better off. In fact, the federal government estimates that eight out of 10 Ontario households would be better off after the federal climate action incentives.

● (1605)

What we're seeing play out in the four provinces in Canada, accounting for roughly 50% of our population and GDP, is the first large-scale test of how a fee and dividend model could work in practice. If this is seen to be positive and succeeds in reducing emissions while keeping most consumers and households whole from the price impacts, then this is going to be an important example internationally that will be looked at closely in the United States and elsewhere.

If it is undermined, and Canada unravels the progress we've made on carbon pricing, then we're going to make the path to carbon pricing much more difficult for other countries, which would not want to repeat the negative experience here. We've seen this happen with Australia and the recent protests in France. Where there is resistance to carbon pricing in one place, it can undermine progress in others. On the other hand, a successful implementation, as we've seen in the U.K. or British Columbia, can be a positive model to encourage action elsewhere.

Getting carbon pricing and the federal backstop right over the next few years is a key piece of Canada's international leadership on carbon pricing, and I hope the committee's report will reflect that.

Thank you very much.

● (1610)

The Chair: Thank you for those comments.

Finally, we'll move to David Sawyer from the Smart Prosperity Institute.

Mr. David Sawyer (Senior Fellow, Smart Prosperity Institute): Good afternoon. Thank you for having me here today.

My name is Dave Sawyer. I'm a senior fellow at the Smart Prosperity Institute at the University of Ottawa. I'm also a regulatory economist. I've been doing work in the last year for Liberal governments, NDP governments, and Conservative governments on climate policy, so I have some pretty good insight on the various views of governments and how they're implementing carbon policy within the federation. I'm going to talk a bit about where we are and do a bit of a state of play, and then finish my remarks.

Just three years ago, it seemed inconceivable that Canada, collectively, would be developing serious carbon policy that could see emissions peak by 2020. Our gap analysis now suggests that federal and provincial carbon policies together could, with some tweaks, achieve our 2030 emissions target while keeping economic impacts to a small fraction of annual GDP growth. Importantly, the emerging policy package that we see, which includes carbon pricing, regulations and innovation—including revenue recycling to deal with distributional issues that Mark and others talked about—appears sufficiently robust to cost-effectively scale ambition toward deeper decarbonization by mid-century, meaning that we have the architecture and the knobs and dials to tune the current architecture to go deeper if we choose.

But theory and modelling are not practice. In practice, siloed provincial policies and competing policy preferences continue to challenge the ability of Canada, together, to achieve cost-effective action. Blame successive federal governments that left the policy field open, allowing provincial leaders within the federation—obviously their jurisdiction—the space to step in or not. Step in many provinces have, with their own locally tailored carbon policies, giving us the jumble that now defines pan-Canadian climate effort. Also, blame partisan politics that continue to stomp on long-term economic risks.

The simple truth is that our domestic climate ambition is bundled tightly with the geopolitical expectations of our trading partners and therefore with our own geopolitical aspirations. As the world continues to demand more ambition—and in fact much of Canada's ambition has been driven externally, I would argue, certainly up until very recently—Canada, to keep costs in check, will need to address this policy fragmentation that exists.

So far, the federal government has done well to manoeuvre within the federation's fragmented policy landscape. lt has laid down a policy touchstone in the carbon policy benchmark in the pan-Canadian framework, developed in collaboration with the provinces, for Canada to accommodate tax and trade jurisdictions alike by allowing provinces to follow a minimum price schedule if taxing, or a quantity reduction aligned to the 2030 target if trading. There's flexibility there. You don't have to outsource your climate policy to the federal government if you're a province.

To address the competitiveness neurosis that pervades climate policy, the provinces and the federal government seem to be on the right track. The federal carbon price benchmark lays out a carbon-pricing hybrid for the large industrial emitters, or the emission-intensive, trade-exposed industries. The federal system mirrors and builds on current efforts in Quebec and Alberta, which use performance benchmarks to cost only a fraction of GHGs but, as Dr. Leach said, “maintain the price signal” to reduce emissions.

Of course, British Columbia, Saskatchewan, Ontario, Nova Scotia, Newfoundland and Labrador, and Manitoba now have all proposed or are developing similar carbon-pricing schemes for their industrial emitters. We expect Ontario to move in the near term to outline its new industrial carbon-pricing system. Yes, it's true: The “Resistance” has proposed carbon-pricing schemes. Why? It's simple—industry demands it.

They worry about competitiveness. We did work for 300 large industrial facilities in Alberta and Ontario, and competitiveness is top of their minds. By extension, it's top of governments' minds, obviously.

Most economists and policy wonks will in turn tell you that they like the federal carbon-pricing benchmark. lt pushes economy-wide carbon pricing while setting price or quantity standards to better align the subnational patchwork. This alignment is needed to contain costs, but by accommodating this provincial patchwork, the pan-Canadian framework has perhaps understandably kicked the can down the road. It has almost institutionalized these provincial silos, thereby running risks of locking in high-cost mitigation islands, with everybody doing their own thing at a high cost. This is what really keeps the policy wonks awake at night: a continuation of this high-cost fragmentation with misaligned carbon costs across policies and jurisdictions—high cost within policies, high costs across jurisdictions.

Of course, there is more to carbon policy than carbon pricing. Governments of all stripes understand this, with the pan-Canadian framework reflecting provincial carbon policy packages that include regulations, carbon pricing, innovation funding and co-operative governance structures. Currently, the federal government's forward regulatory plan has 14 or so regulations or amendments that are listed under development in advance of the carbon-pricing plan. Notable among these are proposed regulations for methane in oil and gas, as with Alberta; a clean fuel standard, as with British Columbia; vehicle regulations and HFC controls.

● (1615)

Most carbon policy folks will agree that this regulatory agenda makes sense. Existing equipment, building and vehicles regulations can be tweaked to address policy gaps, and importantly can be scaled to deeper ambition. Typically, they save folks money on the cost of operations of equipment in the long term. Economists can get onside, somewhat, with the regulations if they're performance-based, meaning they enable compliance flexibility to act a lot like a carbon price. The federal vehicle standards that Prime Minister Harper implemented have this trading carbon pricing aspect in them. We see more regulations emerging to that effect, and economists typically think that's a good way to go.

Still, support for more regulatory action is polarized: Either you believe regulations address market failures and deliver more reductions, or you think they are expensive relative to carbon prices. As with carbon pricing, there's debate and argument about the best way to go. Since regulations are good at hiding costs deep in regulatory impact analysis, politicians tend to like regulations because of the low political cost per tonne. If you want to get something done, quietly, you regulate and hide the costs.

As a last thought, one needs to think of carbon policy within the federation as so much more than carbon pricing. The challenge within the federation is not whether we should price carbon. We are already pricing carbon in a big way. Indeed, it is literally the law of the land, starting on January 1 of this year. As this decarbonization mega-trend intensifies, we need to work beyond politics to keep costs down and drive innovation that is globally salable. Then, of course, hardening our economic resilience to increasingly dangerous weather might also require a bit of attention.

Thank you.

The Chair: Excellent.

Thanks, everybody, for those opening comments. We're going to get right into the questions and answers.

First up we have Mr. Amos, for six minutes.

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

Thank you to this august panel. It is really quite impressive to have you before us, a wonderful opportunity.

I'd like to start with Mr. Cameron. Are there any statements the other witnesses made that you're in significant disagreement with? Or would you suggest that in large measure you're in agreement with them?

Mr. Mark Cameron: I'm in large measure in agreement with all the other panellists, yes.

Mr. William Amos: How would you qualify the Conservative Party of Canada's discourse around the issue of pollution pricing?

Mr. Mark Cameron: Up until now, the Conservative Party of Canada has indicated that they support the Paris reduction target, Canada's INDC submission of a 30% reduction below 2005 levels by 2030. They voted in favour of that last year, which I think is an appropriate target. It was the target that was introduced by Prime Minister Harper. The Conservative Party hasn't been clear on how they intend to meet that goal. They said that they don't want to have a carbon price, at least a consumer carbon price. There has been some debate around industrial carbon pricing, but there hasn't really been anything put on the table in terms of how they would meet the rest of that 30% target.

Mr. William Amos: In terms of the quality of political discourse, other witnesses went into this issue, and I want to hear your comments about it. Some of us on the front lines have decried the paucity of quality debate.

Mr. Mark Cameron: There are two levels. I've been in discussion with Conservatives, both federally and provincially—

● (1620)

The Chair: Sorry, we have to stop for just a second. We've had a point of order called, so I just need to hear what the point of order is. I've stopped the clock.

Mr. Warawa, go ahead.

Mr. Mark Warawa (Langley—Aldergrove, CPC): Thank you, Chair.

The purpose of this is to hear from experts on the issue of putting a price on carbon. We're not here at this meeting, and it was not the mandate of the committee, to ask the panellists to critique different political positions, particularly going into an election. If this is what the committee now wants— to change the purpose of this study— then we need to know that.

The panellists today do not make a balanced panel. The panel provides one perspective on a complex issue. That was a concern that I expressed to you at the beginning of the meeting. The ideal is to have a panel that includes both sides of an argument. What we have now is one side, which for whatever reason.... I'm okay with it, but if we're now asking the expert panellists to provide a critique on political positions, that's not what this meeting was called for.

The Chair: I hear what you're saying. I'm not sure that's a point of order. You made your statement, and we have allowed some latitude in members. I'll leave that to Mr. Amos to consider as he moves through his questioning.

Mr. Mark Warawa: I would suggest that his questions are not in order. It's not the mandate of the committee to ask the witnesses to provide a critique on the political positions of the major parties. That's not what this study is for, and I believe his questions are out of order, which would be a point of order.

The Chair: At this point I'm comfortable, but I hear your point, so I would ask Mr. Amos to be aware of that perspective that's been put out. I think if we spiral down into a very partisan set of questions, we've been warned that it could lead to a non-positive outcome for dealing with climate change in Canada. We are talking about climate or the pricing of pollution within an international context, so I would encourage members from all sides to keep that in mind as they're moving through their questioning with our witnesses.

To the comment on the witnesses, each party was assigned witness numbers based on the number of seats here, so the Liberals were given six, the Conservatives three and the NDP one. The way it lined up is that the Conservative witnesses are available on Wednesday, so they will all be here that day, along with the NDP witness. Today we are hearing from many of the witnesses put forward by the Liberal Party. I just put that out there to address that question in the comment that you made.

Mr. Mark Warawa: Thank you.

The Chair: Mr. Amos, you still have four minutes and 25 seconds.

Mr. William Amos: For clarity's sake, I'm going to be addressing issues that were raised by the witnesses. I'm going to continue doing just that. The comment was made around domestic repercussions of the quality of the carbon pollution pricing debate, so I think it's germane. The nature of the discourse, the quality and the depth of that discourse, is exactly why I'm asking these questions.

Mr. Cameron, what do you think might be the implications of an overly partisan discourse in the area of pollution pricing on the average Canadian, who doesn't think like an economist and who is trying to live in the real world and is only surfacing to examine some of these public debates at election time?

Mr. Mark Cameron: Let me go back to your previous question for a second. I think there are two levels of discussion that are occurring within the Conservative Party. I've certainly been in dialogue with Conservatives, both federally and provincially, who have been quite sophisticated around questions of carbon pricing or what other alternatives exist to deal with greenhouse gas emissions. But there's a public discourse, particularly in social media, that I think is very negative and very rhetorical. We're trying to deal with a very complicated public policy problem, and it's probably good for all sides to tone down the rhetoric and focus on the substantive policy differences.

Mr. William Amos: Thank you for that.

Mr. Rivers and Mr. Leach, I wonder if you have any comments to make on the challenges around creating a more positive discourse and the contributions of the opposition. If you have none, that's fine. I have other questions to move to.

● (1625)

Dr. Andrew Leach: Let's stick with the substantive policy questions.

Mr. William Amos: On the issue of jurisdiction, I know none of you are lawyers—that's great—but the issue around the federal jurisdiction to establish a backstop is a central one, and it's going to be played out before courts of appeal in Canada this year and likely next. How important is it to have judicial clarity around the federal government's jurisdiction in order for a pricing mechanism to be effective all across Canada? I ask each of you, anyone who is interested in getting into that issue.

Maybe I'll put it differently. What are the negative repercussions of the inability to have an equally imposed price on pollution across Canada, a baseline, if you will?

Mr. Dale Beugin: I think it's the outcome that matters, from an economic perspective, the consistent, harmonized carbon price across the country, which is the outcome that will minimize costs overall. That coordination could be achieved from the bottom up, between provinces coordinating with each other, or it could be achieved from the top down, with the federal government playing the coordination role. From an economic perspective, it's the outcome of harmonized policy that is most important for minimizing costs.

Mr. David Sawyer: Whether it's federally imposed and they pre-empt their provincial policies or there's bottom-up alignment.... We've done analysis in modelling going back to the national round table in 2008. We found that continued fragmentation increased the cost by about 25%. In the pan-Canadian framework milieu, looking at provincial policies, scaling them up and aligning them, the alignment of carbon pricing knocks about $50 off the carbon price. It's a fairly significant chunk, to the extent that you can basically grab low-cost reductions and various trade reductions within the federation and not strand low-cost opportunities somewhere else.

Mr. William Amos: Are there any others?

Dr. Nicholas Rivers: I would only speak to the economic issue, which is where I have some qualifications to speak. I would echo the arguments the other two have made, which is that the economics field would suggest that we would want to have as level a playing field across the provinces as possible. That would be the role that the federal government is playing in imposing this backstop, to have a consistent playing field across the provinces.

The Chair: You're out of time, so we'll move to Mr. Godin.

[*Translation*]

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

I want to thank the witnesses for being here today.

I think that what really matters, as many of you mentioned earlier, is the result. We're aware of climate change, and we must find solutions to improve our quality of life and the environment.

My question is for all the witnesses.

Have you assessed the Canadian situation? The Canadian situation is as follows. When it comes to the carbon tax, we can't refer to other countries, and I'll tell you why.

Canada is the second largest country in the world. We know that Russia hasn't implemented a carbon tax. To ensure that the carbon tax is the only way to achieve our goals, can you confirm that your research has taken into consideration what other high-density countries with large territories are doing in this area?

[*English*]

Mr. Mark Cameron: I wouldn't say that a carbon tax is the only solution for any country. I think the panellists have said that carbon tax is, at best, part of the solution for Canada, but it's a very important part, putting a price on carbon. In terms of other large countries, China is bringing in place a carbon price starting this year. Australia, which is a very similar country to Canada, had a carbon tax system in place that they removed, but they did it on a national basis, and there is an emissions intensity scheme that they're working on now. It's not true that, simply because a jurisdiction is large, with a large geography, it can't do carbon pricing. I mean, California is as big as Canada in population and also very large geographically, and they have a carbon price. I don't think it stands up that, because we're a large country geographically, carbon pricing isn't a sensible solution for Canada.

● (1630)

[*Translation*]

Mr. Joël Godin: It must be understood that we're not talking about populations here, but about territories.

[*English*]

Mr. Mark Cameron: I understand.

[*Translation*]

Mr. Joël Godin: It's very important to specify this.

We're not anti-carbon tax. We disagree with the federal government's decision to impose things. It comes with a cost.

It has been demonstrated that three provinces have achieved good results. British Columbia took the initiative, and you all spoke in favour of British Columbia. Alberta has achieved good results. Quebec has decided, for a variety of good reasons, not to apply a carbon tax, but to create a carbon market.

Each Canadian province knows its realities. As I told you at the beginning, our goal is to improve the environment. Wouldn't it be better to equip and support the different provinces and territories in order to achieve the desired results?

Like many people, you said that the carbon tax isn't the solution or that it isn't the only solution. Why does a federation such as Canada, which has the distinction of being a very large country and where the population is concentrated in the southern regions, want to apply the carbon tax uniformly to all the provinces, when the provinces don't have the same reality?

The same is true for economic development. The previous Conservative government had six ministers of economic development. Why? Because there are six different regions. We could extrapolate with more, but at some point, we need to group things together.

I want to hear your thoughts on this.

[*English*]

Dr. Nicholas Rivers: I'll start.

I think it's important to note that the federal backstop is a backstop. It applies to provinces that don't have a similar regulation. Quebec, which has a cap and trade system, is not affected directly by the federal backstop. The cap and trade system is seen as functionally equivalent to the federal policy, so Quebec is proceeding with its own policy.

There is an equivalence between the cap and trade system that's being used in Quebec and the carbon pricing or levy system that's being used in some of the other provinces. You could think of someone driving a car. The way you're going to experience the cap and trade system in Quebec is through an increase in the price of gasoline in your car, and you'll experience that, as a commuter or a driver in Quebec, in exactly the same way you'll experience it in B.C., which has a tax on carbon. In other words, as a driver, there is no difference in incentives for you to reduce carbon emissions under the policy in Quebec compared to the policy in British Columbia. They're functionally equivalent, and that's why the two policies are both allowed under the federal rules.

Mr. Dale Beugin: I'll chime in here too.

One of the advantages of the pan-Canadian framework is the flexibility it gives to provinces to implement their own carbon pricing policy in different ways. We've seen different levels and different approaches to output-based carbon pricing and output-based performance standards. We've also seen very different approaches to revenue recycling. Different provinces have had different priorities in different contexts that can legitimately justify different approaches to recycling their revenue.

So there is a balance between giving provinces the discretion to customize policy according to their own context, which is important and legitimate, and also moving towards that coordinated, harmonized carbon price across the country to minimize costs overall.

The Chair: It's over to you.

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

I want to talk about British Columbia for a minute. My riding is Kootenay—Columbia, in the southeast corner of B.C.

When carbon pricing in British Columbia comes up, we occasionally hear about different approaches to carbon reduction. I have to say that I have been in favour of pricing pollution, absolutely. We occasionally hear people say that the reason carbon decreased was that the economy was getting into trouble by about 2008 or so, and that was the reason the amount of carbon went down; it wasn't because of the pricing on pollution. We also hear at times that it started to go up because B.C. stopped adding to their price of carbon on an annual basis, which they were doing at one time.

I'd be interested in hearing those of you who have studied British Columbia closely talk about those issues.

● (1635)

Dr. Nicholas Rivers: I have done some of the studies on British Columbia. There have been lots of other authors who have done similar ones, and they do try to grapple with the issues you're talking about. They try to say that there are all kinds of things that might affect greenhouse gas emissions or people's decisions in British Columbia, so how are we going to try to attribute any change in greenhouse gas emissions to a policy when we know there are all kinds of other things that could be driving that as well?

Basically, what those studies are doing is either taking data on individual households—such as how much gas a household consumes, or how far they drive—or taking data, for example, on gasoline sold each month in a province, and they're comparing it to what's going on in all the other provinces. The recession that happened in 2009, for example, is something that happened in other provinces as well. They try to control for other things that could be driving these trends, in addition to the carbon price, so changes in demographics or population or prices or other things. They're trying to do this comparison of other provinces, and also control for other factors to come out with these findings.

I should say that it's impossible to say with 100% certainty what the effect of any carbon price or any policy anywhere has been because we don't have two worlds. We don't have one world where this carbon price was applied and an exactly similar world where it wasn't applied. What we're trying to do with statistics is to create those different worlds and tease out the effect of the carbon price from those different data.

Mr. Wayne Stetski: On balance, are you comfortable that the science would suggest that the decrease in carbon was related, then, to pricing on carbon?

Dr. Nicholas Rivers: Yes. Half a dozen studies have reached exactly the same conclusion. That suggests the carbon price has reduced emissions from where they would have been without the carbon price. This is not rocket science—the price of gasoline goes up, the price of natural gas goes up, and you expect people to use less of it.

We have thousands of studies on what we call “energy demand elasticities”—demands for natural gas or gasoline or diesel as the price of those fuels goes up or down. We can also use those studies to try to make some inferences. It's not as if a single study came out with this conclusion; there's now quite a robust body of evidence to support this finding.

Mr. Wayne Stetski: Occasionally we hear that, to be really effective, we have to go to $200 a tonne. It seems to be a common figure that I've heard over the last few years. Is there an ideal?

Mr. Dale Beugin: I'll take a first shot at this.

Lower carbon prices will drive lower emissions reductions. Higher carbon prices will drive higher emissions reductions. It isn't a question of yes or no, or whether emissions reductions are effective or ineffective. It's a question of degree and of scale.

If the threshold is any emissions reductions at all, then that assertion is incorrect. Even low carbon prices drive emissions reductions, as we've seen in B.C. If it's a question of achieving the target and achieving the national emissions reductions we've set for ourselves, then, as some of the others have said, higher carbon prices or more stringent policies will be required to get those deeper emissions reductions.

Mr. David Sawyer: I have a quick comment. Policy interactions always go on. Prime Minister Harper's vehicle efficiency regulations and coal-fired power phase-out make it easier for the carbon price to do its job later on, because cars are more efficient and we're using less fuel. Yes, there are more people and we're driving more, but those cars are using less energy and therefore have fewer emissions. Emissions aren't as high, and therefore a carbon price or another policy to hit the target can be lower.

We have all these policies, packages, that are squeezing these emission margins all over the place. We have regulations, subsidies, carbon pricing, and they're all making it easier to hit the target, ultimately.

Mr. Wayne Stetski: In 2007, I got a cheque from the B.C. government, before they implemented their carbon pricing in 2008. I'm feeling a little left out. Do you think B.C. should adopt Canada's new policy, so I and all my constituents get a cheque in the mail?

Mr. Mark Cameron: I think the federal policy is quite well designed. It's basically a fee and dividend model that gives an almost equal per capita dividend. B.C. gave some money to lower- and middle-income households. They also cut both corporate and personal income taxes, and then they started fooling around with different kinds of tax credits and things like that, which I wasn't as enamoured of.

Sure, I think the best approach would be simply to rebate the money—or at least all the money from the consumer sector—directly to consumers as rebates or cheques.

● (1640)

Mr. Wayne Stetski: Thank you.

Mr. David Sawyer: B.C. would have to raise their personal income tax rate to make up the shortfall.

The Chair: As a British Columbian, I'm not sure I want to hear that.

Let's move over to Mr. Fisher.

Mr. Darren Fisher (Dartmouth—Cole Harbour, Lib.): Thanks very much.

Thank you, gentlemen, for being here. I wish I had 40 minutes to ask you questions, to get some of this amazing stuff on the record very clearly.

We've heard very often that pricing pollution is just one tool in the tool box to fight climate change. For the record, bottom line, does putting a price on pollution work? I'll go with Andrew.

Dr. Andrew Leach: Demand curves slope downward, so yes.

Mr. Darren Fisher: Thank you.

In my riding of Dartmouth—Cole Harbour, clean tech is booming. I can see it everywhere.

I had a conversation with a business owner who does wind and solar. In the last four or five years, I think, he has gone from six employees up to 60. He said that he would take as many trained technicians as he could possibly get, but now he just can't get enough people to upscale as fast as he wants to.

How does putting a price on pollution help grow that clean technology sector?

Dr. Andrew Leach: It's not necessarily going to change the problem where you're not finding people for the job, or the salaries you're offering. A carbon tax isn't going to make that happen. Where carbon tax is going to play is that it creates a market for those better technologies. It rewards companies that can reduce emissions in their supply chains, etc.

I would point you probably to David Popp's piece that he wrote for C.D. Howe, and his rules for governments looking to spur clean tech. His rule number one is carbon price, because it doesn't put the decision in the hands of government as to which innovations make sense. As I think my colleagues pointed out, it just creates a potential revenue stream or cost savings, which in turn creates value for the clean tech.

Mr. Darren Fisher: Excellent.

Mark, you said on Twitter, “I do believe that the carbon price program should eventually become a national program modelled after the federal backstop program.” Can you elaborate on your reasoning for that?

Mr. Mark Cameron: Yes, Dave McLaughlin, with the International Institute for Sustainable Development, and I actually wrote an op-ed in The Globe and Mail on that.

We thought that ultimately—this is something that we're looking at post-2020—the federal backstop model would actually make sense as a national model for a couple of reasons. One is to achieve that consistency and harmonization across the board that the other panellists have talked about. The other is the output-based allocations or emissions performance standards that have been brought forward in different provinces to deal with competitiveness challenges. Another way of dealing with that is border carbon adjustment, but that's really something that could only be done at the national level. I think a national-level carbon price with a consumer rebate, and then moving output-based allocations to a border carbon adjustment, would be, in the long run, a policy worth looking at.

Mr. Darren Fisher: Do you see that happening in the long run?

Mr. Mark Cameron: If I could predict that, I could be doing other things.

Mr. Darren Fisher: David, with regard to the report you prepared on this topic—and Dale touched on this a bit—using the data from your report and using Ontario as an example, under the federal backstop plan, can you explain how the average Ontario family would do financially under the backstop?

Mr. David Sawyer: It's pretty simple. Your carbon exposure in your household is a function of your building, the cars you own, and the number of people in your building. So, it's your heating, the cars you own, and then your consumption of non-energy goods. In fact, any of us could probably answer this question. When you add that all up and figure out what the carbon exposure is in groceries, as that carbon price gets passed through supply chains and as the electricity sector passes some of that cost through, as the cement sector passes it through, you see that prices rise, absolutely. When we do our busy work and use our sharp pencils and figure that out and then compare it to the size of the rebates that are coming, for most houses their carbon exposure is lower than the rebate. As Mark said, eight out of 10 are better off.

That's pretty straightforward.

Mr. Darren Fisher: What about lower-income families?

Mr. David Sawyer: Lower-income families are interesting. A higher percentage of their income goes to energy, so they're disproportionately exposed and there are concerns over that. Lots of jurisdictions have given out an extra bump or top-ups to low-income households, but because overall they don't spend a lot of money on energy relative to the size of the rebate, they come out ahead. It's very beneficial.

● (1645)

Mr. Darren Fisher: Do I have any more time?

The Chair: You still have a minute.

Mr. Darren Fisher: I heard Dale's comments on that. I thought maybe I'd go to Andrew on that same question.

Dr. Andrew Leach: On the low income...?

Mr. Darren Fisher: Well, it's on the first portion. Using Ontario as an example, how will people fare financially under the federal backstop plan?

Dr. Andrew Leach: I don't have solid numbers on Ontario. I did bring some Alberta numbers, where we now see about 40% of households in Alberta ending up better off overall as a result of the rebate. It's a lower percentage than when the price was first put into effect because the government hasn't raised the rebate. That share is going to be larger in the federal backstop reach. I think Dave has some really good numbers on that.

What I would also emphasize, though, is that even when we look within those groups, people are all going to be individuals and they're all going to be affected differently, so the carbon price lets individuals and firms decide how to react, but there's no way to say necessarily that everyone in this group is going to be better off, because people have a lot of differences in how they use emissions. It will be different across different ridings, different occupations, etc., so we should be careful about generalizations that everyone who looks like this is going to be better off.

Mr. Darren Fisher: Thank you, Mr. Chair.

The Chair: Now we'll go to Mr. Shipley.

Mr. Bev Shipley (Lambton—Kent—Middlesex, CPC): Thank you very much, Mr. Chair.

Thank you, witnesses. I've never had quite as astute a panel as we have today.

My questions are going to be pretty basic. Can you tell me the global percentage of emissions that Canada produces?

Mr. Rivers, go ahead.

Dr. Nicholas Rivers: We produce just under 2% of the world's emissions.

Mr. Bev Shipley: Can you tell me about the global emissions for China, India, Russia, the Eastern European countries, and Asia? These are all economists, folks, so I'm assuming they have all the numbers.

Dr. Nicholas Rivers: I'm not sure I can remember them all. China's about 26....

Mr. Bev Shipley: Well, I think the United States is actually in the 30%—

Dr. Nicholas Rivers: No, it's a little lower than that. China's ahead of—

Mr. Bev Shipley: And we're less than 2%.

Dr. Nicholas Rivers: We're less than 2%.

Mr. Bev Shipley: They're our largest trading partner, I think. Can you tell me how much the $20 a tonne will reduce greenhouse gases in Canada?

Dr. Nicholas Rivers: I don't think we can say precisely, but I would have said, in the ballpark—

Mr. Bev Shipley: Can you tell me, then, how much, any of you—

Dr. Nicholas Rivers: The evidence that we've talked about said that the $30 per tonne price in British Columbia reduced emissions by between 5% and 15%.

Mr. Bev Shipley: When was that?

Dr. Nicholas Rivers: It was introduced in 2008.

Mr. Bev Shipley: So that was during the recession, as my colleague mentioned.

Mr. Mark Cameron: No. It was 2012 when it hit $30.

Dr. Nicholas Rivers: When it hit $30, it was 2012.

Mr. Bev Shipley: I'm just trying to get a handle, because one of the things we're talking about....

Mr. Chair, quite honestly, I've yet to hear about what it's going to do. All I hear about is the amount of money we're going to collect from people. For a bystander sitting out there, and me—I'm in agriculture, and this has a huge.... I know the panellists said this isn't going to...and everybody agrees with it. I can tell you that, in my riding, they don't agree with that.

My concern, then, is how much the reduction at $60 a tonne would be. We're going to start at $20 and go to $50, $60, $100 or $600. I'm not sure where it's going to be, because the government actually hasn't told us. What is the impact going to be in terms of carbon reduction at $30 a tonne?

Dr. Nicholas Rivers: The government has published estimates for what it believes the price will achieve.

Mr. Bev Shipley: Are those done on models?

Dr. Nicholas Rivers: It's based on models, yes.

Mr. Bev Shipley: Thank you.

Dr. Nicholas Rivers: The estimate, if I remember right, is between 50 and 90 megatonnes from the $50 per tonne price, and we're at about 710 megatonnes right now.

Mr. Bev Shipley: Can you tell me, from all your research, if CO2 is a pollutant?

Mr. Sawyer, go ahead.

Mr. David Sawyer: Can I address the other question?

Mr. Bev Shipley: I have only a few minutes.

Mr. David Sawyer: Fair enough.

Under former prime minister Harper, it was designated under CEPA, the Canadian Environmental Protection Act, as a pollutant, so yes.

In terms of the last question, on farm fuels, liquid fuels are exempt, so a $1,000 carbon price will have no impact on on-farm use of diesel. In the buildings, absolutely. But there's no incentive there for energy efficiency in on-farm fuel use.

● (1650)

Mr. Bev Shipley: But it is on electricity. Is that right?

Dr. Nicholas Rivers: [*Inaudible—Editor*] electricity directly.

Mr. Bev Shipley: I'm just trying to get a clarification.

Mr. David Sawyer: Farms could get credits. If farms can do methane reductions, they can generate credits. With on-farm manure and waste, if you can generate renewable natural gas, the clean fuel standard under the federal government will provide an opportunity for reductions and credits.

Mr. Bev Shipley: In producing milk...?

Mr. David Sawyer: Yes.

Mr. Bev Shipley: So the feed that I buy, the transportation to move it, the inputs that I do to grow my crops, the fertilizer, the inputs, all that has a carbon tax. In fact, some of the research we did on agriculture—because we were looking at it—said about $7,000 on average in Ontario, because every dairy farmer is also a cash cropper in some way.

I'm just trying to get an understanding. How does our innovation...? Carbon pricing drives innovation. How do we rate with our innovation compared with that of our competitors? Are we that far behind that our innovation is really far behind without a carbon price?

Mr. Cameron, go ahead.

Mr. Mark Cameron: I think the point is that you want your innovation to be ahead of the pack. You don't want to be second or third. There's no prize for second. If you're ahead of the pack, then you're able to export your innovation around the world. That's really where we want to be.

There's no question—

Mr. Bev Shipley: My question is, where are we?

Mr. Mark Cameron: I'd say we're in the middle of the pack. That's not where we want to be for competitiveness.

Mr. Bev Shipley: In Ontario, in the dairy industry.... Do you know where they come to for innovation with new equipment that comes from Europe and other countries? They come to Ontario, because we're a leader in terms of the innovation and the ability to take that risk to move forward.

On rebates, I'm always interested when a government wants to rebate. Can you tell me how much a rebate actually costs, the percentage of a dollar that goes back out?

Mr. Beugin, go ahead.

Mr. Dale Beugin: Sorry, clarify the question, please. I don't understand.

Mr. Bev Shipley: On rebates, when we have rebates, that's a government collecting the money, deciding who's going to get something back, and then writing a cheque. Do you know what the percentage of that would be of what's collected, what's returned, what the efficiency of that is?

Mr. Dale Beugin: You're talking about transaction costs and the cost to government of operating that process.

Mr. Bev Shipley: Yes.

Mr. Dale Beugin: I think they are quite small, given that the CRA already provides rebates and given that those rebates are equal across different households. There's no customization of those rebates. It's uniform.

Mr. Bev Shipley: Okay.

That's good. Thank you very much.

The Chair: We'll move to Mr. Bossio.

Mr. Mike Bossio (Hastings—Lennox and Addington, Lib.): Wow. Holy cow, what a great panel. It's just phenomenal.

I just want to clear up a few things there from Mr. Shipley. Canada's emissions are just under 2%. Its population is 0.5%. In terms of its per capita emissions, where do we rank now? I think we have always been kind of one and two globally. Is that true?

Dr. Nicholas Rivers: A few oil-exporting Middle Eastern countries are higher than us, but we're among the leaders.

Mr. Mike Bossio: Among OECD countries, we're number one per capita. Do you not feel that it's our moral responsibility to be responsible for our own pollution? Would you agree with that?

Mr. Dale Beugin: I think we can go even further. If Canada is not taking action to reduce its greenhouse gas emissions, what reason do we have to expect that other countries would do the same? That is exactly the nature of the collective action problem that is climate change. Only by all taking action can we address the significant costs and risks that arise from climate change.

Mr. Mike Bossio: You actually fed into exactly the direction I wanted to go next. Given the plan that we have put forward as a federal government, do you feel that we have taken a balanced approach among a price on pollution, the fee dividend, the rebate model, investments in transit, investments in innovation, having a more balanced regulatory regime, and emissions control, with all of those operating in conjunction? I think over 50 measures are being taken to address our GHG emissions.

One, do you feel that is the right approach to take? Two, you mentioned earlier that internationally they are looking to Canada's model and saying, okay, if this is successful, it gives others an incentive to follow the same model; but if we blow this up in the next few years, it's a total disincentive to those. Do you feel that it's the balance we've achieved that makes it such a great and important model to the rest of the world?

● (1655)

Mr. Dale Beugin: I think it's a solid approach that minimizes costs and relies on carbon pricing. I think it could go further. I think the economists of the Ecofiscal Commission might argue for even more reliance on carbon pricing and even less reliance on other instruments.

That being said, I think it does take a balanced approach to managing the costs, managing the emissions reductions, and taking a leadership role.

Mr. Mike Bossio: Would you agree that it's an evolution, not a revolution? If you tried to do it all in one shot.... As I think I've heard many times from many economists, it is the actual progression of that price that is vitally important over time to reach the point that achieves your targets.

Mr. Dale Beugin: Yes. I think you want to—

Mr. Mike Bossio: I see Mr. Rivers nodding his head.

Would you like to comment, please?

Dr. Nicholas Rivers: I think that's bang on: You recognize the fact that it's not any one year's emissions that are causing the problem. It's the cumulative emissions over time that are causing the problem. We want an approach that targets our cumulative emissions over time, which means sending a long-term signal to the economy that we're on a decarbonization pathway.

At the same time, we want to avoid any really adverse shocks to the economy. We want to build up slowly, but build up to a really strong policy over time.

Mr. Mike Bossio: Thank you.

That leads to a further point. We've heard others refer to the concern around the impacts it will have on our economy. Would you agree that because companies have this clear price signal over a long period of time, the investments they make will actually increase their productivity and increase their innovation, therefore leading to stronger companies that will be more competitive in the long run?

Mr. Dale Beugin: I think expectations of future carbon prices are exactly what businesses want. They want certainty to make those long-lasting investment choices and to know how they will pay off. I think there's also an expectation that carbon constraints elsewhere are only going to increase as other jurisdictions start to get moving, get more aggressive in how they move, and maybe even begin to impose their own border measures.

In short, getting ahead of the curve and reducing emissions more now rather than later can improve Canada's competitiveness in a carbon-constrained world.

Mr. Mike Bossio: Mr. Leach, I see you nodding your head as well. Maybe you or Mr. Rivers would like to add to that.

Dr. Andrew Leach: The piece I would add is that it's not just about other countries having carbon constraints but about where your capital is coming from. That's something we've seen in many aspects in Canada—the pressure we're under internationally to lower our emissions, improve our performance, etc., and the tying of that to access to capital. Internationally and domestically, you're seeing major funds develop sustainable investment policies and remove their investments from emissions-intensive sources. The more we're seen as being at the forefront in innovating, the more we're going to have access to capital.

Mr. Mike Bossio: Mr. Rivers, go ahead.

Dr. Nicholas Rivers: So your question is about economic growth and carbon pricing.

Mr. Mike Bossio: Yes, and the impacts.... I mean, maybe you say it's going to impact our businesses and they're not going to be able to compete on a level playing field.

Dr. Nicholas Rivers: Right. My view is that carbon pricing is pretty much a wash for the economy overall. It's not going to make us a lot bigger and it's not going to make us a lot smaller. I think it will increase the growth in cleaner sectors in the economy and reduce it in less clean sectors of the economy, but for the economy as a whole and for workers as a whole, it will be a wash.

Mr. Mike Bossio: From an innovation standpoint, does it force an economy to innovate?

Dr. Nicholas Rivers: I don't think there's a lot of evidence that it's going to increase the total amount of innovation activity in the economy, but it will redirect it towards clean activities. It won't cause a growth in the number of scientists or a growth in the number of patents, but it will redirect scientists and patenting activities towards lower-carbon ones.

The Chair: Thank you.

Mr. Warawa, it's over to you.

Mr. Mark Warawa: Thank you. It's been a very interesting discussion.

I agree with a number of things that have been said by the panel, but not with the ultimate conclusions. It's interesting that we see the same evidence and we come up with different conclusions .

We do have a changing climate. It's anthropogenic. What's the solution? I think we would all agree that if we do not have buy-in from all the major emitters, it is not possible, globally, to reduce our carbon footprint to have an effect—the effect that we want. Would you all agree that globally we need to reduce our greenhouse emissions as a starting point?

● (1700)

Dr. Nicholas Rivers: I'm going to go back to what Dale said a minute ago. I think you have it the wrong way around, personally. To me, you don't get a global agreement and then have each country going to reduce emissions—

Mr. Mark Warawa: But you're missing the.... I'm not going to get into a debate with you, Mr. Rivers—

Dr. Nicholas Rivers: To me, that kind of global consensus around emissions reduction is going to come from the bottom up—

Mr. Mark Warawa: I'm going to ask you to be quiet now because I have the floor. We're not in a debate.

The question was, do we need to have a global reduction in greenhouse gas emissions to meet our global targets? The answer is yes. How do we get there? Do we get there by Canada doing its fair share? Absolutely.

Mr. Mark Cameron: Absolutely.

Mr. Mark Warawa: Is Canada already doing its fair share? Absolutely.

Mr. Mark Cameron: No.

Mr. Mark Warawa: We would disagree on that.

Mr. Cameron, you said that, per capita, Canada is probably number one in the world. How is that calculated? Is it based on how much we emit in Canada or by the production of the products that we export? It's not. It's calculated, I believe, in a way that may not be realistic or fair to meet the global targets.

Mr. Mark Cameron: It's based on our domestic emissions divided by either population or GDP. The methodology is the same and it's been applied around the world in every country.

Mr. Mark Warawa: Does it include our sequestration?

Mr. Mark Cameron: It does. If we sequester carbon, that would be included.

Mr. Mark Warawa: It doesn't. It does not include sequestration for Canada, the arboreal forest—it does not include that.

Mr. Mark Cameron: Because it wouldn't be....If we're—

Mr. Mark Warawa: It includes all the emissions of the production of oil and gas that we export out of Canada. Is that not true? All the emissions...what we export out of Canada.

Mr. Mark Cameron: No, it's only our domestic.... For our exported oil and gas, those emissions count against the country where they are consumed, not the country where they're produced. It's our production emissions that are recorded in those statistics, but these guys know more about that.

Mr. Mark Warawa: I stand to be corrected.

Coming from British Columbia....

Dr. Andrew Leach: The protocol you're looking for is land use, land use change and forestry as part of the emissions inventory. It will probably be right near the bottom of the table where they account for sequestration, forest lands and land use, including agriculture, by the way.

Mr. Mark Warawa: Talking about agriculture, we had canola as a witness here a couple of weeks ago. It was before Christmas, a couple of meetings ago. They have reduced their emissions based on no-till. Production is way up and they're world leaders. They're talking about the carbon tax encouraging them to reconsider relocating to the U.S. It can be grown down there. The science is Canadian, but there's no carbon tax in the U.S., while a carbon tax is going to be imposed in Canada, and they're saying it's hurting them and making them less competitive. That's what they're saying. That is what they testified to the committee. Would you disagree with that?

Mr. David Sawyer: I would say I'd love to see the data and take a look at it. As I said, we do facility-level analysis and farm-level analysis all the time. Sure, there are costs and there are risks and some folks are on the edge, but we'd like to see the data.

I find people tend to get a little muddled as they're learning about what carbon costs and carbon exposure actually are, and when it comes to farms, there is a lot of confusion out there. I just got off a call last week with some folks and there's some confusion.

I think there's a need for some education. Sure, there are some risks, but a lot of their emissions are unpriced and unaffected. That's not to say there's not a competitiveness risk, but I'd like to get my HP out and take a look and help them get their heads around it.

Mr. Mark Warawa: How much time do I have left?

The Chair: You have one minute and 20 seconds.

Mr. Mark Warawa: I come from British Columbia, where the price on carbon was $30 and it went up to $35. It's no longer revenue-neutral. It's revenue-generated from British Columbia. Emissions in British Columbia—and I've lived there my whole life—were going down, for multiple reasons, but I believe efficiencies were a major factor that helped. Cars, as of 2011, emit way less than what they did pre-2011, along with appliances, and there's the home improvement tax credit and on and on.

Has the carbon tax been effective in British Columbia? The argument here is that it has been. My argument is that it has not been. It has not changed behaviour. But that's my opinion and you have your opinion.

My question for you is this. Right now, at $35 a tonne, it's 112% tax. There's provincial sales tax at 7%, GST at 5%. The carbon tax is 112%. It is 112%, on natural gas.

● (1705)

Dr. Nicholas Rivers: Natural gas—

Mr. Mark Warawa: It's a carbon.

My question is, how high does the carbon tax have to go to be effective, to cause a change in behaviour? The change in behaviour we're talking about is people getting out of their cars and not heating their homes. How high does it have to go?

The Chair: I'll let anyone who wants to take a crack at it do so briefly, but we're out of time on this one.

Dr. Nicholas Rivers: Right. There's a lot to unpack there.

Mr. Mark Warawa: Yes, there is.

Dr. Nicholas Rivers: First of all, the research has consistently demonstrated that the price on carbon in B.C. has reduced emissions. There have been at least half a dozen studies that reach the same conclusion with a lot of different datasets and approaches.

In terms of how high it has to get, as Mr. Beugin mentioned, each increment in the carbon price will cause an increment in emissions reductions. I wouldn't expect any carbon price to see wholesale elimination of heating in buildings or driving. I think we'll see different technologies and fuels used for both of those activities.

The Chair: With that, we'll leave that round of questioning and we'll go over to Ms. Dzerowicz for her six minutes.

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

Thanks so much for the excellent presentations. I'm the member of Parliament for a riding called Davenport, which is downtown west Toronto. There's a mix of extraordinarily passionate environmentalists who want us to move much faster than the current pan-Canadian framework allows us to or wants us to. Then there's a whole group who, I would say, believe climate change is happening but they're not quite sure what the impacts of the price on pollution will be.

The first question I was going to ask is the one that my colleague Darren asked. Will they be left holding the bag? We hear this quite a bit, that it's going to be so expensive and it's going to make their lives more expensive.

Mr. Cameron, you mentioned that eight in 10 will be better off. Who are the two in 10 who will not be better off?

Mr. Mark Cameron: The two in 10, really, it depends on your behaviour. This is looking at averages. You could be a billionaire but drive an electric vehicle and live a very modest lifestyle and you'd save money, or you could be a low-income family and decide you want to spend all your money, I don't know, lighting coal on fire in your backyard, and you'd pay more.

Relatively speaking, the two out of 10 would tend to be upper-income households that have larger emissions profiles, but it's based on your own individual and household behaviour.

Ms. Julie Dzerowicz: That's helpful. Thank you.

Competitiveness is obviously something of concern for everyone. It has been mentioned by all of you, and I think it was you, Mr. Beugin, who said that any type of carbon pricing should be designed to protect competitiveness and protect low-income residents. In your opinion, does the carbon backstop legislation that we've created address both of those elements?

Mr. Dale Beugin: It does. It addresses competitiveness concerns through the output-based carbon pricing system, and it addresses fairness for low-income households through those rebates to households.

Ms. Julie Dzerowicz: Professor Leach, you mentioned another thing that I also hear, whether or not big emitters will be exempt. You directly addressed this. Could you address it one more time in terms of why big emitters are not going to be exempt under our plan?

Dr. Andrew Leach: I think it's important to draw a line between whether some of their emissions are off the books or exempt from coverage versus whether they receive some emissions credits for free. The important difference between those two is that, in the system proposed federally, in the system implemented in Alberta, and even in the system that was largely in place in Ontario and Quebec before the changes, the full value of any emissions reduction is still preserved by that system.

If you reduce your emissions by 10%, that just puts either more money into your pocket in terms of the value of the credit or less overall carbon tax bill, whereas if 80% of your emissions were exempt from the carbon price, then you would only capture 20% of the value of your emissions reductions. It's important that it gets preserved while reducing the average cost to companies.

Ms. Julie Dzerowicz: You also talked—all of you, to a certain extent—about this in terms of the price on pollution and having a negative impact on economic growth. I think I heard very clearly that it should have a positive impact on economic growth.

Who would like to address that for a minute?

Dr. Andrew Leach: I'll start, and then others with more models can....

I don't think that was the message. I think the message was that the impacts would be fairly small. Most economic modelling shows, in some cases, small negative impacts on trend but not at the scale that we've heard talked about this week of recession or causing economic growth to disappear. You are taking about something that was previously a cost imposed globally on others, and you are bringing some of those costs here. You have to take that with a grain of salt.

● (1710)

Mr. Dale Beugin: I'll echo Andrew. Our models show growth remaining positive even under large carbon prices, albeit slightly less strong than it would be in the absence of any policy. Growth is very, very slightly, very modestly slower with carbon pricing.

Dr. Nicholas Rivers: I think the one other thing to point out is that, if we're going to hit our emission reduction targets, the cheapest way to do so, the way that will impose the smallest impacts on growth, is through the carbon pricing approach. A regulatory approach would impose a bigger cost on growth than would a carbon pricing approach.

Dr. Andrew Leach: Maybe I will swing back in on that.

I think one of the things that we've certainly felt in Alberta is the cost and impacts on growth of non-carbon pricing policy. We saw Keystone XL as a prime example of that. The policies imposed on us externally have way higher cost.

To Nick's point, you have to be really careful not to assume that there is some world where Canada can just go on emitting whatever it wants, whenever it wants, with no external consequences. That world doesn't exist. If we imagine that Canada is going to take action and needs to take action, then the carbon price is the best way to do that.

Ms. Julie Dzerowicz: As I think you know, Mr. Shipley was mentioning earlier how we tend to talk about the costs versus the actual emissions and what the reduction in emissions will be. Carbon pricing isn't going to reduce the emissions to where we need them to be for us to meet our Paris accord targets, although we have a number of initiatives under the pan-Canadian framework that, added up, should get us to our Paris accord targets. We're not quite there yet. I think we still had 66 megatonnes to go before Ontario pulled out of the cap and trade. I think we still have some work to do there. That is the understanding. I don't think anybody believed that carbon pricing is going to get us to reducing emissions to the extent that we need to in order to achieve our Paris accord targets.

It really is a combination of a number of things. Isn't that true?

Dr. Nicholas Rivers: I guess I would just point out that I wouldn't talk of carbon pricing as a discrete thing, like a yes or no. It's not like a light switch. If it is a light switch, it's like a dimmer. There are lot of different levels of carbon pricing. You could have a very strong carbon price that would get us to our target, or a smaller carbon price that wouldn't get us to our target.

Ms. Julie Dzerowicz: Yes, to the point that Mr. Beugin mentioned, the higher it is, the faster people may change behaviour.

Dr. Nicholas Rivers: Exactly.

The Chair: You're out of time.

Now our last one for this round goes to Mr. Stetski.

I believe you're going to share or give your time to Ms. May.

Mr. Wayne Stetski: Yes, with the consent of my colleagues, I'd like to give the opportunity to our Green Party leader to have a question or two.

The Chair: Ms. May, you have three minutes.

Ms. Elizabeth May: Thank you.

I'm so grateful to you, Wayne. Thank you.

First of all, thank you. What a stellar panel of the thought leaders in Canada and the researchers on carbon pricing. On this conversation we're having, bearing in mind that you're not climate scientists and you handled some of those questions that weren't in your area, I'm very grateful to you for being here.

Some of the back and forth reminded me of a comment by a climate scientist, Dr. Katharine Hayhoe, who said recently—and I'm paraphrasing—that it's so strange that some people seem more afraid of taking action on climate change and are fearful of what that will cost them than they are of the failure to take action and the loss of human civilization. We have rather large risks that we're dealing with, and we're not dealing with them quite adequately.

I will parenthetically note to this committee, because I'm not a member of it, that maybe in camera you could consider linking by video conference with who I think is right now the leader globally in calling for climate action: 16-year-old Greta Thunberg from Sweden. Perhaps you can bring her in by video link.

I want to take the time I have, which I'm rapidly losing, to focus on what we can do beyond carbon pricing. Just to be really clear so you all know, I was the only opposition member of Parliament who voted for the whole budget in order to vote for carbon pricing, because it's that important. But it's way less than what's enough, because we now know that the Paris target, as we refer to it, of 30% below 2005 levels by 2030, is wholly inadequate to hold us to 1.5°C, which we must do.

I want to direct this to you, David Sawyer, because I know you were the lead on a really big project called “Deep Decarbonization”, pathways to deep decarbonization, and did the Canadian piece. I wonder if you would share with us what your main findings were on the steps that Canada needs to take to really move to deep decarbonization.

● (1715)

Mr. David Sawyer: Yes, sure.

Canada has a leading policy architecture that is the envy of the world and that people are looking towards. I was just at the OECD, and people are like, “What's going on in Canada?” This combination of carbon pricing, regulations, innovation subsidy programs, methane controls and the ability to tune those to deeper decarbonization is really what people are looking at globally.

The climate leadership policy package in Alberta looks a lot like that. The current federal policy program looks a lot like that. Again, we've tumbled the numbers, and those policy packages are really scalable to deep decarbonization. We see that the vehicle regulations that Prime Minister Harper put in are actually on a trajectory towards deep decarbonization if you take the current annual reductions. We're banning coal, which, again, was an objective and policy of Prime Minister Harper. That is ahead of almost every other country.

Ms. Elizabeth May: Can I ask quickly where you would put efficiencies in the east-west electricity grid to deliver renewables?

Mr. David Sawyer: Sure. Decarbonized electricity—more loading electricity and more end uses in electricity—is absolutely essential to deeper decarbonization. I don't know what else to say there. Yes, it's a priority.

The Chair: Colleagues, we have a few minutes left before our scheduled end time. What I'm going to suggest is that each side take four minutes. I'm going to hold you to that because otherwise we will run out of time.

I'll go over to that side first. Would somebody like to go for four minutes?

Mr. William Amos: Thank you, Chair.

There have been a number of comments made by provincial politicians about the idea of a price on pollution, particularly carbon pollution, potentially causing a recession in Canada this year. Is there any air of reality to a statement like that?

I'd ask Mr. Rivers to comment first.

Dr. Nicholas Rivers: There's certainly no basis for claiming that a carbon price of the magnitude talked about or being proposed and being implemented will have any likelihood of causing a recession. I think we know this intuitively. The price on carbon is equivalent to a couple of cents on gasoline and a small amount on natural gas.

These are the kinds of fluctuations we experience routinely, and they don't cause recessions. We don't have to just trust our intuition. There are reams of studies. The Canadian government has done a lot of them. Academics have done a lot of them. There's no evidence that this will have any large impact on the economy. It will be a small amount of noise. We don't really know if it's going to be slightly positive or slightly negative, but we do know that it's going to be very slight.

Mr. William Amos: Mr. Cameron, would you agree that there's no reality to what Premier Ford has suggested?

Mr. Mark Cameron: Yes, I would agree. In addition to the fact that it's four and a half cents a litre on gasoline—we see fluctuations at that level every month, if not every week—all the money is going back to Ontarians; 90% of it is going back directly to households as rebate cheques, and 10% will be redistributed in other ways. If there's a slight increase in gas prices and all the money comes back to Ontarians, it's hard to see any economic impact at all. You might be looking at a 0.001% impact.

Mr. William Amos: Are there other comments on that?

Mr. David Sawyer: Ontario's inflation rate was lower in 2017, when cap and trade was in place. The growth in inflation was lower than the previous year and the following year. GDP growth is positive when there's a carbon price in Ontario. We did the analytics on it forecasting it forward, and the GDP impact was a slowing in growth of literally four days in 2020. At $20 a tonne, yes, we have a hard time seeing the impact, and the macroeconomic data from Stats Canada shows no perceivable impact.

Dr. Andrew Leach: I think it's worth noting that in the previous full year of data the four provinces with carbon prices in place had the fastest-growing economies in Canada. It's not a causal statement, but it certainly is really powerful against the idea that carbon pricing could cause a recession. We've run that experiment and we haven't had that outcome.

Mr. William Amos: It's over to Ms. Dzerowicz, if we have any time left.

Ms. Julie Dzerowicz: You mentioned, Mr. Cameron, that 90% goes back to all citizens, and 10% is redistributed in other ways. I think it's meant to go not only to farming communities but also to areas like Davenport, our schools, our hospitals. Is that the right way to redistribute and support? Is that seen in a positive light as part of the overall plan?

● (1720)

Mr. Mark Cameron: What we've recommended doing with that 10%.... The one sector that is impacted and doesn't get something directly is small and medium-sized business. We'd recommend cutting the small business tax rate by an additional 0.5%. That would essentially use that source of revenue. Schools and hospitals are provincially funded institutions. I think the provincial government eliminated the programs in place to reduce emissions in schools and hospitals, so there's less effect on them than on small and medium-sized business.

Ms. Julie Dzerowicz: So that extra 10% doesn't go to small and medium-sized businesses right now.

Mr. Mark Cameron: The government hasn't decided how it's going to deal with that.

Ms. Julie Dzerowicz: Okay, thank you so much.

The Chair: Mr. Godin, go ahead.

[*Translation*]

Mr. Joël Godin: Thank you, Mr. Chair.

I have a question for Mr. Cameron.

In your introduction, you mentioned at the outset that the leadership is yet to come. That's true. We must implement mechanisms that, if they work well, enable us to become leaders. I fully agree with you. We can't say that we're leaders, since we're at the start of the process.

Most of the witnesses talked a great deal about British Columbia's success with the carbon tax on greenhouse gas emissions. I'm not sure whether I've understood this issue correctly—I'm not an expert—but I read an analysis on the National Energy Board's website dated December 27, 2017. The analysis states that British Columbia's greenhouse gas emissions were at their lowest level in 2009. There were increases until 2014, a decrease in 2015 and a further increase in 2016. However, emissions have never been lower than the 2009 level.

We're following a model, and you're praising British Columbia's carbon tax. However, the documents that I consulted suggest that it's not completely true that greenhouse gas emissions have decreased in British Columbia.

Can you talk about this?

[*English*]

Mr. Dale Beugin: As the other panellists have noted, many factors can affect greenhouse gas emissions. The key in isolating the impacts of any one factor is to use statistics to try to determine what is attributable to the carbon pricing and what is not. In other words, what would the carbon price have been absent that carbon tax in B.C.?

The statistical analysis that Nick and others have done says that emissions would have been even higher if B.C. had not implemented its carbon tax. That is through rigorous, very credible econometric analysis.

Mr. Mark Cameron: It's also worth pointing out that B.C.'s GDP has been growing faster than that of any other province, and B.C.'s population has been growing. The emissions are growing at a lower rate than that of the population growth and the economic growth.

[*Translation*]

Mr. Joël Godin: It's like some other provinces in Canada. We can't say that, without a carbon tax, the situation would have been different and the increase would have been worse. I can't take this for granted, because what you just said is hypothetical.

I have one final brief question. Will the carbon tax that the federal Liberal government wants to impose on the provinces help us achieve the 2030 goal?

My question is simple, but the answer may not be simple.

[*English*]

Dr. Nicholas Rivers: I think it's clear that this will reduce emissions, and so far—

[*Translation*]

Mr. Joël Godin: Will we achieve the goal?

[*English*]

Dr. Nicholas Rivers: The published estimates suggest we're not all the way to getting to the 2030 goals. The mix of the carbon price and the regulations on methane and coal and that kind of thing is not sufficient to get us all the way to the 2030 target.

[*Translation*]

Mr. Joël Godin: I gather that we set goals when we were in power and that the Liberal government has adopted our goals. Today, we're realizing that, even if we implement this, we won't achieve the goals.

Shouldn't we find other solutions? Shouldn't we be more innovative? Shouldn't we be doing more to be true leaders?

Mr. Beugin, do you want to answer my question?

[*English*]

Mr. Dale Beugin: I don't think it's a question of instrument; it's a question of stringency. You can have more aggressive regulations or more aggressive carbon pricing policies. To drive deeper emissions reductions, we need more stringent policy. That means either higher carbon prices still, over time, or even more aggressive regulatory policies. But again, it's not a question of carbon pricing, yes or no.

● (1725)

The Chair: Thank you.

Mr. Stetski, you have the last four minutes.

Mr. Wayne Stetski: I have a quick question. I can't remember if it was Mr. Cameron or Mr. Sawyer, but one of you mentioned that the chambers of commerce have now come on board. I wonder if you could speak a bit more about that.

Mr. Dale Beugin: This was in a report in December of last year, that the Canadian Chamber of Commerce indicated its support for carbon pricing as a transparent, market-driven approach to reducing greenhouse gas emissions.

Mr. Wayne Stetski: Of course, the Canadian Chamber of Commerce represents small businesses across the country.

My last question is this. If you had the premiers from the provinces that are holdouts on carbon pricing currently, what would you tell them? How would you convince them that it's a good thing to do?

Dr. Andrew Leach: I think I'd echo some of the comments that have come up, which is that every province has very different circumstances, so carbon pricing gives not only a broad policy tool but flexibility in what to do with revenues. It also gives people a lot more flexibility in how they individually react, so you're not, as a government, imposing solutions or believing that you can dictate innovation from on high, or any of these sorts of things; you're relying on the power of the market to generate the outcomes you want.

Dr. Nicholas Rivers: I think I would say the same things we said earlier, that this is a policy that we have a proven foundation for. It reduces emissions, and it does so at very small cost and at a lower cost than any other option for reducing emissions.

Mr. Dale Beugin: Given that action is required, and policy is required, it's better to have a policy that costs less than a policy that costs more. Carbon pricing is going to be the lowest-cost, least expensive way to reduce greenhouse gas emissions.

Mr. Mark Cameron: Politically, those four provinces that don't like the federal carbon tax have the option to design a carbon pricing plan of their own, either cap and trade or carbon tax, and to use the revenues on whatever they want. If they don't like the federal plan, they have every opportunity to design their own plan.

Mr. David Sawyer: I would say to the premiers, just implement the plans you've been designing. They're ready to go; they've all looked at it and they can just literally roll them out.

Mr. Wayne Stetski: Thank you.

The Chair: That takes us to the end of our session today.

I'd like to thank each of our witnesses for being here. It's been a very good discussion.

The notice that we have indicates that our next meeting is on Thursday. It's actually going to be on Wednesday at 3:30 p.m. The notice is online, which is good. I don't want anybody to miss this. Perhaps we'll see a slightly different flavour in the discussion on Wednesday, but I think it's an important one.

Again, thank you for being here. Thanks to all the members for the excellent and respectful conversation that we've had today. Enjoy the rest of your wintery day in Ottawa.

The meeting is adjourned.