

Standing Committee on Environment and Sustainable Development

ENVI • NUMBER 129 • 1st SESSION • 42nd PARLIAMENT

EVIDENCE

Thursday, November 1, 2018

Chair

Mr. John Aldag

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• (1615)

[English]

The Chair (Mr. John Aldag (Cloverdale—Langley City, Lib.)): We're back in session. This is our sixth hearing on international leadership related to the pan-Canadian framework on climate change.

Welcome to our witnesses. Thank you for your patience today, as we had to deal with some committee business.

I'd like to welcome Mr. Carrie and Mr. Choquette as guests to our committee today.

When we sent the invitations out to our guests, we offered 10 minutes for opening comments. However, because we've lost about 40 minutes of what we thought we'd have, I'll ask you, if possible, to condense your comments to, perhaps, seven minutes. If you need the 10, we'll give you the 10. We would like to get into the question and answer period, where a lot of really important information comes out

In that spirit, we tend to go first with our guests who are here by video conference, just because sometimes the lines are a bit dodgy.

Mr. Fast.

Hon. Ed Fast (Abbotsford, CPC): Thank you, Mr. Chair.

I would like to move the motion that was put on notice a number of meetings ago, and read it into the record.

The Chair: You'll have to wait until you have the floor. You can't move a motion on a point of order.

Hon. Ed Fast: That's why I put my hand up. You recognized me. I have the floor.

Mr. Chair, we're going to co-operate with you here.

The Chair: Okay. Please go quickly.

Hon. Ed Fast: Here's my intention. I'm going to read the motion in, then one of my colleagues will move adjournment of debate on this, and then we will move on to our witnesses, if you don't mind. We're co-operating with the witnesses. We want to hear them.

Here's the motion:

That the Standing Committee on Environment and Sustainable Development request that the Minister of Environment Catherine McKenna appear before the committee to explain the government's recently announced carbon pricing scheme.

That is the motion on the table for debate right now.

The Chair: Mr. Lake.

Hon. Mike Lake (Edmonton—Wetaskiwin, CPC): I just want to make sure that when we have that discussion, it's in a public meeting, and we have a half an hour set aside from one of the meetings to make sure we have that discussion, so we won't do it while we have witnesses waiting here.

With that, I move adjournment of debate on this motion.

(Motion agreed to)

The Chair: We're adjourning debate.

Now we'll go back to Michael Andrade, our guest from the Council of Canadian Innovators. It's over to you. You have up to 10 minutes, or a little less if possible.

Mr. Michael Andrade (Chief Executive Officer, Morgan Solar Incorporated, Council of Canadian Innovators): I appreciate having the opportunity to talk to you. I think what you're doing is of the highest importance. I like the way you framed it as an environmental and sustainable development issue. I find that much of the debate around these things tends to devolve into and-or discussions such as we can have economic growth or we can improve our climate, and any actions that Canada takes within our border will be more than offset by something else.

I would like to say my experience is fundamentally different from that. My view is that sustainable development is not an environmental term. Development can really only be sustained if it makes economic sense, not only within our borders, but also if it is competitive externally, outside our borders.

I'm going to limit my comments to not being about whether climate change is happening or anything like that. That's not my area of expertise. I want to deal more with the pragmatic ideas about what we should do to deal with the issues associated with climate change and the forces that it is going to have on industry, so that we really can have sustainable growth.

The thinking around climate change is forcing people to make what I view as the next technology shift that the world will go through. My concerns are more that we could be left behind in Canada if we continue to follow the current line of thinking.

Let me give you a bit of background. I am very passionate about a globally competitive technology ecosystem for Canada. I don't think when people think about technology that they have thought about how I see it now. It's not just about ICT technology. I think communications computing technologies have now infiltrated all manner of industries. It's very difficult to have a modern economy, be it in cars, where you see autonomous vehicles; planes, where you have UAVs; medical diagnostics; or finance, the tech side of it. Therefore, when I'm talking about technology, my view is that it's more foundational for an ecosystem and will become increasingly important as Canada transitions from some of our more traditional resource-based economies.

What I want to talk about is where I have experience and maybe where I can add to that. I'm not a politician, a public servant or anything like that. My experience is in technology. I have tried to put my money where my mouth is and help out where I know. I'm a member of the Council of Canadian Innovators. I'm on the board of the Next Generation Manufacturing supercluster. I'm a member of the Canadian government's clean-tech economic strategy table, and my day job is CEO of Morgan Solar. I am an investor and adviser in multiple early-stage tech companies. My interest is also why I'm here today.

I'm going to provide my comments in three areas. The first is the technological implications involved here, essentially the technology in clean tech. The second is the unique role that government plays in this particular market. The third is the competition, basically the difference between the discussion that we're having in Canada and what I see elsewhere.

First, I'm going to talk about the implications of the technology in clean tech. This stems from my 30 years of technology. I basically have been dealing with and working with some of the leading technology companies as they've wrestled with some of the major technological shifts that have occurred in the world, from the introduction of the PC to the dot.com boom and bust, to the telecom boom and bust. I was one of the founding management team of Celestica, which split away from IBM, as it went through its near-death experiences in the wake of the PC revolution.

Unfortunately, along the way I worked very closely with Mitel, BlackBerry, Nortel and other Canadian companies and saw first-hand how the pressures of technological changes that hurt IBM so badly also affected Celestica and these seemingly unrelated companies. This led to the point where today we really do not have a large Canadian-headquartered flagship technology hardware company.

I believe this is critically important because my experience with IBM is that, regardless of how globally minded a foreign-owned multinational company is, you're always at the whim of that HQ in another country, and most of the value and the good jobs go to those countries.

● (1620)

My view is that we really need to look at this as a tech shift and learn the lessons from previous tech shifts, when we're considering clean tech and sustainable development. We have to look beyond our borders. To paraphrase Trotsky, even if you're not interested in global technology trends, global technology trends are interested in you. We're going to have to figure out how to deal with that.

In order to avoid the same things that have happened in all of those other technologies happening to clean tech, we have had recommendations from the clean-tech economic strategy table and CCI that are designed to help with that. I won't go into them in any great detail, but they include an agile regulatory system, addressing gaps in scale-up financing, expanding skills development immigration policy, working overseas to promote Canadian technology—kind of a Team Canada approach—and domestically, having government play a role, as a lead buyer in incentivizing industry procurement of Canadian technology.

I think the government has made some good strides in this direction. I think the recommendations that CCI and CTEST are making will help. We are ready and willing and actively trying to implement those along with the government. That would be the first thing I would say. It needs to be viewed as a technology change. Whether we want to participate or not, it's happening. The lessons can be learned from what's happened in previous technology changes and I believe it's important to have Canadian leaders come out of that or we will play a bit part in the change that's coming.

The second thing is that, unlike other technology changes, the government has a unique role to play here. In fact, I would argue that it's a primary role. Like the technology flows that I talked about, the environment also does not respect company walls, provincial borders or country boundaries. By definition, the rules that are established on how to manage the environment cannot be provided by industry, but must be done as a member in good standing of the world community. Here, Canada plays a disproportionate symbolic role. I really believe we can punch above our weight here.

My first point is that no one else can do this role. Canada plays a role here and we need to play a role.

Second, unlike in other markets, the government is actually the market maker for the environment and for the rules that affect it; hence, it can generate the solutions to the problems it faces. This is bigger than the traditional discussions about market failures, like insufficient price of externalities, pollution and the like.

My opinion is that, without the government's involvement, there is no market, with no mechanism by which the market engages, and therefore, we will remain on our current path with our current technologies, unless the government puts changes in place. The Einsteinian quote is that you cannot solve tomorrow's problems with the technologies that created them. We need to have a change.

Finally, if the government does not act and create rules of engagement, my opinion is that you're abdicating a role that only you can play and are not establishing the conditions to allow the market to work. Basically, having no policy is a policy and it is a policy of the status quo. Even if climate change is not happening, I believe it's a bad diversification and risk-hedging strategy associated with our economy. That's because I see things happening outside of our country that I want to talk about. That's my final segment here, regarding competition and our experience in Canada versus elsewhere.

I can't put this all on the government because I believe that the government can only push as far as its citizens are willing to support. As a citizen and a business leader, I would like to close on a point about some of the issues I see there.

This issue has become extremely polarized in Canada. Much of what you see in the news is that climate change and the technologies to solve it are government vanity projects, which have been showered with largesse and are taking money away from hardworking Canadians. In essence, it's portrayed that any changes will destroy or hurt our way of life and our economy, for no good reason.

Whether that's true or not, my experience, and that of other members of CCI and the clean-tech community, is that other countries are markedly different. Even countries that we would think, here in Canada, are behind us in climate change investments, like the U.S. and China, are actually way ahead of us. For example, in solar, the Chinese government has a structured top-to-bottom program by which they invest in dominating global manufacturing. They have 50% of the world's demand for solar and are continuing to push export and technology development.

● (1625)

Even in the U.S., even with what you hear on Trump, solar installations continue to outpace, because it is cheaper than the other alternatives. It makes sense. Cities and states are doing what they need to do.

As a result of this experience, we find as clean-tech companies—

I'm almost finished.

The Chair: We're at the 10 minutes. If you could wrap up that would be great, thanks.

Mr. Michael Andrade: Our experience is that we are potentially at a disadvantage here in Canada. We have other foreign companies competing effectively in Canada. In many cases, we think we are at a disadvantage overseas.

The climate here is not as favourable as for other industries. I don't believe any of those things need to be the case.

The Chair: Thank you for your comments.

I'd like to move now to Mr. Ragan, with Canada's Ecofiscal Commission.

Professor Christopher Ragan (Chair, Canada's Ecofiscal Commission): Thank you very much for the invitation to be here. It's an important issue.

Let me begin by saying that your cookies are outstanding, and I'm happy as a taxpayer to be supporting cookie purchases for such a good thing.

I will try to be brief in the hope that the briefer I am, the more time we'll have for questions. I'll make four quick points.

First, Canada is not a leader in climate policy, but we are actually moving forward, and that's a good thing. If you look around the world, carbon pricing is becoming more accepted, for two reasons: one, more governments are believing that climate change deserves a serious policy response, and two, more governments are realizing that carbon pricing is the best way forward for this because it is best as a policy to maintain economic prosperity. Currently, 46 jurisdictions around the world have carbon pricing, and 14% of global emissions are currently carbon-priced.

That's point number one. Here is point number two. Carbon pricing is central to Canadian policies, the new and emerging policies.

Let me begin at the provincial level.

British Columbia and Quebec have very well-designed carbon pricing systems, and they are quite differently designed carbon pricing systems: B.C. with a carbon tax and Quebec with a cap-and-trade system. Alberta also has a very well-designed carbon tax system, with some output-based allocations that I'll talk about in a second.

The proposed federal backstop is also a quite well-designed policy, I would argue, for reasons that we can talk about. I think what we will see is that carbon pricing will play a greater role in the future as the carbon price in these provinces or the federal backstop increases. It will have more centrality in terms of overall climate policy. That's point number two.

Point number three is that carbon pricing works. It works effectively to reduce greenhouse gas emissions.

We could look at British Columbia, where emissions in the first five or six years of that policy, which started in 2008, fell by between 5% and 15% relative to where they otherwise would have been in the absence of the carbon price. The U.K. has a U.K.-specific carbon tax that applies over top of a European cap-and-trade system, and we have seen emissions in the U.K. fall more steeply than in the EU, which is what you would expect. California has a well-designed cap-and-trade system that is operating to successfully reduce emissions.

I would also argue that over the longer haul, a key part of carbon pricing is that it drives innovation. In fact, I would argue that the number one way to energize the business model of the clean-tech sector isn't to use government subsidies or government support, which I think has many problems, but to put a nice, clean, predictable rising carbon price in place. That will drive innovation and support the clean-tech sector.

The fourth point is that when you design carbon pricing, there are two main challenges that you need to address. One is the impact on business competitiveness. The second is the impact on household purchasing power.

It would be naive to think that you could design a carbon price that by itself would have no impact on competitiveness and probably would not have an unfair impact on households. You can, however, design policies in a way that addresses those challenges head-on.

This is the output-based pricing element of the federal backstop—it's also basically modelled on the output-based allocations in the Alberta system—which is a way by which you can effectively give a second policy tool to the large final emitters that can give them, from the carbon price, an incentive to reduce emissions but also gives them an incentive to not shrink and not reduce their economic activity within the jurisdiction.

We can talk a bit more about that, if you like.

Household fairness is a very important issue, because carbon pricing works by raising prices. It works by raising prices based on the carbon content of the goods and services. That is going to reduce the purchasing power of households, period. However, if you return some of the revenues to the households in the form of lump sum payments—it could happen through the tax system, or it could happen through regularly issues cheques, the latter being used in Alberta, the former proposed in the new federal system—then you can in fact have your cake and eat it too. You can actually maintain the purchasing power of the households, and you can actually drive those prices as well and drive the behavioural change, and that is what this is all about.

● (1630)

My final comment will be that I recognize that the design of the policy to address competitiveness and the design of the policy to address that household impact is tough to explain. It's tough to explain to anybody, so I will just leave it there and hope that you ask some questions, so that I get more time to talk about those two issues.

Thank you.

The Chair: Thank you for those comments.

Next we have, from the Climate Action Network Canada, Catherine Abreu.

Ms. Catherine Abreu (Executive Director, Climate Action Network Canada): Thanks so much for having me this afternoon.

I'll begin by saying a little bit about who I am and what Climate Action Network is. Canada's primary network of organizations working on climate change and energy issues, the Climate Action Network is a coalition of 116 not-for-profit organizations operating from coast to coast to coast. We are part of an international network that operates in 120 countries and has 1,200 members worldwide. However, our membership is unique in that it brings environmental NGOs together with trade unions, first nations, social justice groups, development, health, faith and youth groups.

For 30 years we have been the only organization with a mandate to promote the interests of the Canadian climate movement as a whole, rather than any one individual organization.

I came on board as executive director of the Climate Action Network about two years ago from having worked on the east coast for Atlantic Canada's largest environmental organization, heading up climate and energy programs there. For a bunch of years, I ran something called the Atlantic Canada Sustainable Energy Coalition, where I worked with all four Atlantic governments to take advantage of the opportunities presented by the transition to clean energy.

I'm speaking to you today aware of the fact that this is the sixth session that you've had on this issue. Believe it or not, I've actually listened to most of the others. You've received some really excellent testimony from a number of witnesses, including a few Climate Action Network members and some of our really close working allies.

I don't want to be repetitious. I'm going to start by saying something that I haven't yet heard said in these meetings, and I'm then going to reinforce some of the reflections that others have provided to you on the three main topics that you're taking a look at through this study. I will end by talking about why the world needs Canada. I did have a big section on carbon pricing but Chris has covered that off so I'm going to strike that.

Since 1992, Canada has been making and breaking international commitments on climate change and that's why, as Chris said, we are not currently a leader on climate change policies, but we are moving forward and we do have a chance at redemption. The Paris pledge is our fourth climate target and it is our moral obligation to get this one right. The world's scientists tell us that we have 12 years to cut global emissions in half if we want to keep living in this paradise that we currently inhabit.

The pan-Canadian framework on clean growth and climate change is a historic document and implementing the 50-plus policies that are outlined in that document is essential if we are going to get on track to meeting our current Paris pledge, but it's not enough. That's because we know that our Paris pledge to reduce emissions by 30% below 2005 levels by 2030 does not represent our fair share of the global effort and we are going to very soon need to push past that to deliver the reductions that science tells us we need.

That's why Climate Action Network Canada proposes that the Government of Canada establish a body of experts—taking lessons from the U.K. climate committee and the German environment agency—mandated to develop and track standard indicators that measure progress on Canada's climate and clean growth goals over time; that provides regular reports to federal and provincial governments, reports that necessitate a formal response from the federal government; that makes recommendations on how Canada can improve its performance on climate action in line with the best available science and credible assessments of our fair share of the global effort; and that proposes more robust emission reduction goals over time in line with our Paris pledge, putting us on track to fully decarbonize by 2050.

That's the new idea, and now I'm going to address those three areas you outlined that you're taking a look at in the study.

First, on Canada's international climate finance commitments, I want to first emphasize what you've already heard from Greenpeace Canada and the Canadian Foodgrains Bank. That \$2.65-billion commitment over five years that was made in 2015 was very welcome but insufficient. In 2020 Canada will provide \$800 million in international climate finance. If we take a look at the size of Canada's economy relative to the economies of other donor nations, the Climate Action Network in partnership with the Canadian Coalition on Climate Change and Development—which is our sister network—estimates that Canada's fair share contribution to the overall \$100-billion goal would be about \$4 billion in 2020.

• (1635)

As we grow our contribution to get closer to that fair share, we also have to be working to hit a fifty-fifty split between financing for mitigation and financing for adaptation. Climate finance should come in the form of grants, not loans. Adaptation financing should be targeted at those most vulnerable and poor, with the focus on women and girls.

To these points, I want to add that climate finance must use sound, transparent and honest accounting methods. I can talk more about that later, if you want to know what that means.

It has to be efficient. It has to speed up the global transition away from fossil fuels. What that means is that financing for fossil fuel electricity generation that is marginally less GHG-intensive than other fossil fuel electricity generation is not climate finance. That perpetuates continued dependence on fossil fuels.

Climate finance has to include environmental and social safeguards. For example, projects that have a fairly limited benefit for climate, but very high social impacts should be avoided. An example of this might be a forest project that displaces indigenous communities. Climate finance must not result in double counting or constitute our buying our way out of domestic action.

Speaking of buying our way out of domestic action, I'll turn to internationally transferred mitigation outcomes or ITMOs.

You've heard now from the Centre for Clean Air Policy, the Pembina Institute and Greenpeace Canada that, if Canada is going to consider taking credit for greenhouse gas emissions reductions that happen outside of our borders, then we can only do so if we are taking the greatest, most ambitious possible action here at home already. That means that none of our existing Paris pledge can come from ITMOs, with the exception of the carbon market, of course, which is currently shared between Quebec and California.

Any money used to facilitate ITMOs must be new and additional; i.e., over and above Canada's fair share of contribution to international climate financing. ITMOs can only be used to increase overall climate ambition, rather than cover up for ambition that is lacking.

I think Canada actually has an opportunity to really lead negotiations, under article 6 of the Paris Agreement, to get any facility that would operate ITMOs right. I have some recommendations on what Canada might be able to offer to that space, but we can touch on that later in conversation.

Finally, on trade, I'm just going to pick up on what you've already heard from the Canadian Council on Renewable Electricity and the Grain Growers of Canada.

Canada has a lot to offer that the world needs, particularly as we move away from fossil fuel dependence. That's why it's really important that any trade agreement we enter into reinforces, rather than undermines, the strong environmental and social safeguards that Canada has in place. That will give our companies a leading edge, as we move into the clean energy economy.

Several speakers have noted, and I agree, that the work of the task force on climate-related financial risk disclosure can offer a really complementary process, where businesses engaged in international trade develop a shared understanding and transparent accounting of the climate-related risks of their operations.

I'm going to end by talking about why the world needs Canada.

When we look around, I think it's easy to see that, more than ever, a compelling and credible global voice to champion clean economic development and the long-term opportunities presented by the transition away from fossil fuel is absolutely essential.

Canada has a lot to offer the world, when it comes to lessons on how to get things right. As I said at the beginning, we may not currently be an overall leader when it comes to climate change policy, but leadership is a multi-faceted thing. It comes in a bunch of different packages. We can offer the world examples of leadership on coal phase-out, climate action in an oil-producing jurisdiction and just transition for workers and communities.

My first UN climate conference was in Paris in 2015 and I can't tell you how moving it was to be a Canadian in a space where the world was so excited to have Canada back. We just can't afford to lose our reputation again for punching above our weight when it comes to climate policy and international climate diplomacy.

Thanks.

• (1640)

The Chair: Thank you.

Last, from the International Development Research Centre, thank you so much for your patience. We'll have up to 10 minutes for Dominique Charron.

Ms. Dominique Charron (Director, Agriculture and Environment, Programs and Partnerships, International Development Research Centre): Thank you very much.

Thank you, Catherine. I think you set the transition very well for our audience here.

I am going to be speaking on behalf of the International Development Research Centre, which is a crown corporation within the portfolio of the Minister of International Development.

IDRC funds research in developing countries to promote sustainable and inclusive growth, to reduce poverty, and to produce evidence and innovations for large-scale positive change in people's lives and livelihoods.

Specifically today, I'm going to be speaking about how we are developing knowledge that helps build the resilience of the most vulnerable people in the developing world, by strengthening capacities of developing countries to tackle climate change, partnering with other agencies for greater impact and bringing that knowledge to a global scale for effective climate action.

[Translation]

We work in partnership with local organizations to strengthen developing country capabilities to conduct research and to use research results to inform decision-making. For example, with Global Affairs Canada, IDRC funds the African Institute for Mathematical Sciences, where graduate-level training is helping to build a critical mass of mathematical scientists to contribute to climate change solutions for Africa.

[English]

Climate change is a global problem as we've heard and it requires efforts on many fronts. Certainly innovations and policy are required to reduce emissions, and we've heard already some statements to that effect. Our focus is on reducing the impact of climate change on the world's vulnerable people in developing regions. This is where we focus the research and the innovation.

In alignment with Canada's international assistance policy, our goal is to ensure that climate action helps people and businesses in developing regions become more resilient in smart, innovative and evidence-based ways, and that actions undertaken by those countries reach everyone, including women and girls and other vulnerable groups.

I'll give you an example. The arid Tensift valley in Morocco is prone to erosion and floods due to the increased intensity of rainfall and deforestation. Two-thirds of the population in this region live in small towns and rural areas. It's quite poor. The water supply there, given the arid climate, is inadequate to satisfy the growing needs of the population. Women in this region are often secluded and economically dependent on the men in their families, and therefore, they're not usually involved in decision-making.

Moroccan and Canadian experts worked together to improve local watershed management by improving small dams to control water flow and water supply, planting trees to stabilize groundwater supply, and developing methods to include women in decision-making around water management.

Some of the women who were included in this project got together to innovate their own early warning system for flooding. They created a Facebook group to warn their neighbours downstream that there might be a flood coming. This may seem like a small thing, but this action had major repercussions in reducing the impacts of flooding downstream and permitted these women to become more empowered as agents of change in their communities. This had knock-on effects in the community. Women in this Facebook group were then able to spin off small business opportunities related to their adaptation efforts in the valley.

The point I want to make is that where people live, and their exposure to flooding, storms and droughts, influences their vulnerability, but social factors such as poverty, lack of education, gender inequality and so on also play roles in their vulnerability to climate change. In IDRC's 12 years of working on climate change in developing regions, we've found that climate action must address these underlying social factors as well as reduce that exposure to climate threats.

In partnership with agencies and departments in Canada, the U.K. and the Netherlands, IDRC has invested more than \$250 million in climate change research, funding 160 research projects and more than 1,000 researchers in Africa, Asia, Latin America and the Caribbean. This represents one of the largest global commitments made by any organization into adaptation research to inform decisions in the developing world.

● (1645)

Partnership is a key dimension of our strategy to achieve greater impact. For example, a partnership with the U.K. through a flagship program, the collaborative adaptation research initiative in Africa and Asia, seeks to increase resilience in climate hot spots. These are locations that disproportionately feel the effects of climate change, such as coastal deltas, mountain regions and drylands.

The program has piloted new options, including flood-resistant housing and new sanitation approaches, and has contributed to national climate change adaptation plans in 11 countries. The programs' findings were cited in the Intergovernmental Panel on Climate Change's special report on 1.5 degrees of warming.

In a second example of partnership, last week the Prime Minister announced that Canada had joined the new Global Commission on Adaptation, which is co-convened with the Prime Minister of the Netherlands and 15 other countries. The Global Commission on Adaptation is a high-level political forum overseen by former UN secretary general Ban Ki-moon and supported by Bill Gates. It seeks to accelerate climate adaptation action over the next two years.

As part of Canada's contribution, IDRC enriches the commission's expertise and experience by making sure that experts from Africa, Asia and Latin America are engaged in the commission. IDRC's prior research collaboration and working relationship with the Netherlands helped bring about this collaboration with the commission. It's a good example of what some might call "science diplomacy". Through our working partnerships, IDRC is helping amplify Canada's voice.

There's a growing sense of urgency, as we've heard, for faster climate action globally, particularly in developing countries, because the impacts are already being felt there by many and because it threatens our ability to achieve the sustainable development goals by 2030.

Research and evidence on adaptation and resilience to climate change have to be focused on reaching as many people as possible and having a large-scale impact.

One concrete example of this is in the Ganges-Brahmaputra-Meghna delta. This is the area in Bangladesh where three great Asian rivers join the Indian Ocean. There are 57 million people living there. It's a 1.7 million square-kilometre area that is at great risk from the impacts of climate change. The efforts of the program I spoke of earlier help to inform Bangladesh's new national delta plan, which is a forward-looking development plan. The evidence and the tools and the long-term relationships between the researchers and the decision-makers in the planning commission help bring this about.

The plan now takes an adaptive management approach that will address the vulnerabilities to climate change and guide practical investment for the coming decades to ensure that the country is able to anticipate and be ready for more severe storms, saltwater intrusion in agricultural areas, heat waves and increasingly unpredictable monsoons.

We have many more examples like this—about 279 tested adaptation options that have been catalogued online in which practical research is informing climate action that is also contributing to sustainable development and to improving people's lives and livelihoods today. IDRC's value proposition is our commitment to addressing the critical challenges facing vulnerable populations by generating a strong evidence base for decision-making.

Canada's support to developing countries has positive spinoffs. Investing in solutions that help reduce vulnerability and stabilize communities to help in dealing with climate change means that fewer aid dollars may be spent downstream in humanitarian action. It also helps countries provide opportunities for people to thrive where they live and reduces the tendency for them to leave and migrate. Further, supporting such research means that scientists globally have a broader evidence base to draw from to inform decisions.

We are pleased to state that IDRC contributes to Canada's international leadership on climate change. We're reaching the most vulnerable people, strengthening capacities, doing it in partnership with others and catalyzing effective climate action. We can and should do more in the years ahead in order to enhance adaptive capacity, accelerate resilience and reduce the vulnerability, so that we can move towards achieving the SDGs.

● (1650)

Thank you for your attention.

The Chair: Ms. Charron, you brought some documents in both English and French that we're going to distribute to the committee members.

I'll also mention to each of the presenters today that if you have additional materials that you'd like to submit to us, you can do so, up to 10 pages. Going beyond that presents some challenges for translation, but feel free to add additional information through our clock.

Committee members, we're not going to get through all of our rounds of questioning. We could go with five minutes each, just to try to give more people a chance to interact. If you want to stay with the six minutes, which is the standard, then we'll go with six.

Hon. Mike Lake: We're fine with six rounds of six.

The Chair: Okay, perfect. Let's start. Mr. Amos, you're up for six minutes.

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

I thank all four of our witnesses. Your attendance is greatly appreciated. Clearly, these are issues you've been thinking about for many years, bringing lots of experience to the table.

I was particularly glad to hear the idea that we're actually moving forward, in the sense that there is some positive momentum and that we're going in the right direction. That's nice to hear, because I've found that at various times over the past year some of the commentary hasn't been focused on what we are doing but has been, I think, a bit distracted.

Part of that distraction owes itself to the quality—or the lack thereof—of discourse in our political realm. In saying this, I don't mean just at the federal level, but also elsewhere.

I'd like to get some very brief comments, as I have other questions, reflecting on the quality of discourse, particularly in the House of Commons, around pollution pricing and what you think Canadians really deserve to be hearing as we consider some important changes in climate change financing.

I'll start with Mr. Ragan and then move to Ms. Abreu and leave it at those two for now.

Prof. Christopher Ragan: Thank you for the question.

You may be shocked to learn that I don't actually follow the House of Commons on a daily basis, so let me not comment on what I hear within the House. Let me comment instead on what I hear from people who are sometimes in the House and are sometimes in front of a live microphone.

You asked specifically about carbon pricing. I think carbon pricing needs to be better explained. It is only natural and appropriate that a policy as important as carbon pricing, whether happening provincially or federally, be debated, and sometimes in a heated way. All policy ought to be debated, and big policy needs to be debated actively.

Carbon pricing is not super simple. There are bits and pieces to it. There are moving parts to it and they have to be explained. What I think has to be explained better is why it makes sense to get households and businesses to pay a carbon price but at the same time to actually provide funds in return. I think many people think this looks like a shell game, and I think it isn't a shell game in any way, but it needs to be explained.

What needs to be explained is how you can build in protection for business competitiveness through output-based pricing, for example, that doesn't undermine the carbon pricing itself. It doesn't undermine it, but on the surface it rather looks like a way to undermine it. Many people don't believe that carbon pricing actually works. Some people think it's just a tax grab, and I think it's not. It's especially not if the revenue is used to reduce other taxes.

There are, then, many bits to carbon pricing. It is complex, and I think it needs to be better explained and that all Canadian politicians in that space need to do a better job.

Mr. William Amos: Thank you.

• (1655)

Ms. Catherine Abreu: I'll be frank and say that I think the rhetoric around climate action has become extremely polarized. Many political officials and leaders of various parties look to score cheap political points by overly polarizing climate action and using it as a political football. Doing so does a really criminal disservice to Canadians. While climate action might be a political issue that is, as Chris said, very worthy of active debate, it should not be a partisan issue. We should expect every party in this country to have something meaningful to say about climate change.

On the issue of carbon pricing specifically, I think it's unfortunate that carbon pricing has become a proxy for all climate action in the ways we talk about climate change in this country. Carbon pricing is really important, but it does not and cannot operate in a vacuum. We need to do a better job of explaining carbon pricing, but we also need to do a better job of explaining the ways in which carbon pricing works with other forms of climate action that we're taking, including ways in which we're looking to diversify our economy and create new avenues for prosperity and job creation in Canada.

Mr. William Amos: Thank you for those responses. I have one more quick question and about a minute left.

The Government of Canada is presently doing what it can, for example through the Global Infrastructure Hub, to engage private sector actors in an effort to increase the funding globally for infrastructure investments that will help in either the adaptation aspect or the mitigation aspect, and not just in Canada but elsewhere in the world.

I'll ask our representative Madame Charron from the IDRC to comment on the importance of Canada's leading in that aspect.

Ms. Dominique Charron: Thank you.

Absolutely, the role of the private sector and of many actors in the private sector in not only funding but in bringing innovations into thinking about a low-carbon future and adaptation is a key element of the adaptation equation, if you will, in the countries in which we work

One of the challenges we have found, from some of the research we have funded, is that there is an inadequate pipeline of fundable, bankable adaptation projects for investors. In working with the private financing advisory network, which is a network of experts who link entrepreneurs with investors, we have tried to identify what some of the barriers are. The long-term nature of adaptation projects is that they are development-type projects, in which we're looking at things that are going to help people's lives and livelihoods—social benefit kinds of investments. They're riskier, they're longer and they're less less easy to undertake than those in the clean-tech area, where there's a more obvious return.

Helping to position entrepreneurs and countries to attract investment has to do with clear criteria, clear benefits and making a strong business case. Some of the research we have funded has helped strengthen the pipeline for that funding.

● (1700)

The Chair: Thank you.

Now I'll move over to Mr. Fast.

Hon. Ed Fast: Thank you, all of you, for appearing here.

Ms. Abreu, I wish I had time to ask you some questions on ITMOs, but I don't think I'm going to get there. You certainly limited the ability to use ITMOs right now, because Canada presumably is not meeting its Paris targets.

I want to focus my questions on Mr. Ragan.

Chris, in much of the work you do you operate in a theoretical world, and you're coming up with theoretical constructs that you're hoping will work in the real world. Our challenge as politicians is that we operate in a very real world in which human nature is very apparent and in full flux, and we live in a political reality that often collides with some of the objectives a theory might have.

I want to talk about the B.C. carbon tax, because it's being held up as a sort of role model for how tax policy should be crafted. You mentioned that the best carbon tax would be one that sets a price that people pay, on one hand, but in which the money is returned to taxpayers in another way—in other words, revenue neutrality.

B.C.'s carbon tax was a revenue-neutral carbon tax when it started out. Today, it's the highest carbon tax in the country: \$35 per megatonne of emissions. It is no longer revenue-neutral. Why? It's because of human nature; political reality set in. You had a new government that saw a source of revenues that could be used for that government's own political priorities, and now we're left with what is essentially a tax grab, and we still see emissions in B.C. going up.

I understand that the economy is growing, but I think we can all agree that the targets in the Paris Agreement are absolute targets, so the emissions we would expect to see would be absolute reductions. It's not happening in British Columbia.

I would ask you to respond. How do we actually address the political realities and the political challenges of trying to keep a carbon tax revenue-neutral, when over the long run it's very difficult to do, given the nature of politicians—those of us around this table?

Prof. Christopher Ragan: That's a great question.

I won't spend much time defending theory, but I will say that the Ecofiscal Commission isn't lost in a theoretical world. Our reports are extremely practical and apply to ways to make pollution pricing—not just carbon pricing but pollution pricing—work in today's world in Canada in a very practical way. I think those reports actually do a very good job of it.

The B.C. carbon tax, as you note, sets the highest carbon price in Canada. It was designed to be—and for something like the first eight and a half years was—revenue-neutral. It was collecting roughly \$1.2 billion in revenue every year, and \$1.2 billion was returned in the form of business and personal income tax rebates, plus some low-income transfers. As you note, it no longer is revenue-neutral.

You're asking an economist to answer a question about how we make political choices. It was a political choice of Gordon Campbell's in 2007-08 to introduce a carbon tax that was revenue-neutral, and it was a political choice by the current government—

(1705)

Hon. Ed Fast: John Horgan's.

Prof. Christopher Ragan: —to undo its revenue neutrality.

I don't know whether there is a best answer to that. Ultimately, these are political choices.

I also didn't say that the best carbon tax is one that is revenueneutral, although I think there are great benefits that come from revenue neutrality. It is certainly the case that a carbon price can be very effective, even without increasing the scale of government at all

Carbon pricing is not about increasing the scale of government. It is about changing prices and changing behaviour. You can certainly return every penny of the revenue to the economy in some form, and you can certainly do it by reducing income taxes or other taxes, and you will get economic benefits from doing so. There are, however, many choices. This is another political choice: whether you want to use the revenue to replace crumbling infrastructure, as in Montreal, where I come from, or whether you use that revenue to reduce income taxes or to pay back debt. There are many choices.

Hon. Ed Fast: They're political choices, right?

Prof. Christopher Ragan: Absolutely they are political choices. We live in a democracy and we want those choices to be made by our elected representatives, and they are tough to make.

Hon. Ed Fast: I have one more question.

Fifty dollars a tonne is the carbon price that the Trudeau government has imposed.

Prof. Christopher Ragan: By 2022....

Hon. Ed Fast: Nobody is talking about what happens after 2022.

Prof. Christopher Ragan: I'd be happy to.

Hon. Ed Fast: Could you do so, then? At \$50 a tonne, I think most economists....

You are an economist. Would you agree with me that \$50 a tonne is not going to measurably change human behaviour to get us to the emissions reductions we have agreed to?

Prof. Christopher Ragan: That was a carefully constructed sentence, so let me agree and disagree.

It is enough to reduce emissions, but it is probably not enough—and I agree with you here—to get us to the 2030 commitments. There's disagreement among economists about what level that price needs to go to. What I see as being in the ballpark is \$100, \$125 or \$150 per tonne, which, by the way, would still leave a litre of gasoline below its price in 2014.

Hon. Ed Fast: Would the two of you also agree that \$50 won't get you there?

The Chair: We're out of time, but that was very interesting.

Mr. Choquette.

[Translation]

Mr. François Choquette (Drummond, NDP): Thank you, Mr. Chair.

I'd like to thank all of you for being here today.

Ms. Abreu, you mentioned that, in Sweden, Great Britain, Finland and Denmark, there is a legislative process that requires greater accountability and transparency with respect to greenhouse gas emissions. Could you explain how this works and how Canada could become a leader if it were to adopt similar legislation, calling for more transparency and better accountability?

[English]

Ms. Catherine Abreu: Thanks, and my apologies that I can't answer in French. My French is terrible.

Yes, it is the case that there are a number of examples worldwide of how countries keep track of, maintain oversight and ensure accountability for their climate commitments.

The Government of Canada has spent the last couple of months consulting on expert engagement for oversight and accountability for the pan-Canadian framework on clean growth and climate change and in fact a couple of days ago issued a request for proposals for organizations to submit ideas on how that body of experts might be formed and who might host it. If we're going to use that mechanism to keep us on track towards our Paris pledge and make sure that we finally follow through on an international climate commitment, we need to do the things I outlined at the very beginning of my address to you.

One essential element has to be the development of key indicators that help us measure progress over time and report consistently on that progress. It can't just be an exercise in which experts come together and talk about the best ways forward on sustainable transportation. They should be doing that, but they should also be asking how we performed this year in the deployment of public transportation or how we performed this year in funding active transportation.

Key indicators are really essential and the mechanism that this body has for reporting to governments at every scale is also quite critical. In a federated country such as Canada, we need to ensure that this body is delivering its recommendations and its reports to provincial and federal governments and that the federal government then has to respond. That is the process we see play out in the U.K. climate committee, which is really useful.

An added benefit of this is that it helps to remove climate action from the vagaries of election cycles. It creates a mechanism that generates a kind of consistent feedback flow among various levels of government.

Finally, Mr. Fast, if I can just pull your first comments into this, it's true that currently we are not on track to meet our Paris commitment. The surefire way to lock in missing our Paris commitment is to use that fact as a reason to delay action. The only way we're going to get to our Paris pledge is by doing everything we can right now, right away.

Everything looks impossible until it is done. We are currently making up for lost time, and it would be a key element of that expert committee to be keeping track of the progress and making sure that we're doing what we say we're going to do.

● (1710)

[Translation]

Mr. François Choquette: Excellent.

I have a question about your perception of the federal commitment to help the poorest and most vulnerable countries. You said that this \$2.65 billion commitment didn't represent our fair share and that it was currently more of a loan than a subsidy, if I understood correctly. Briefly, what is the proportion between the two?

I'd appreciate a quick answer to give me time to ask a question of Michael Andrade, who is also here. I don't want to forget.

[English]

Ms. Catherine Abreu: On the fair share, Canada's portion of the overall economy of donor countries in the OECD is 3.9%, which means that our fair share is 3.9% of any global commitment on climate finance. There is a current commitment of \$100 billion by 2020. Our fair share of that is about \$4 billion.

Concerning "grants, not loans", currently our climate finance comes in both forms, and what I'm saying is that it should come more in grants than in loans, so that we're not putting poor people and countries in more debt by providing them with climate finance.

[Translation]

Mr. François Choquette: Thank you very much.

Mr. Andrade, is Canada a leader in renewable energy innovation? If not, how could it become one? I'm not up on the figures, but we often hear that Canada is lagging behind in the development of renewable energy, compared to other countries that you gave as examples.

[English]

Mr. Michael Andrade: It's going to be difficult for Canada to be a leader in absolute dollars, just because of the size of our own market as compared with those of countries such as China and the U. S., which are orders of magnitude bigger. They are always going to have a larger domestic market than ours. By definition that's going to mean that we'll have to be an export-led.... This cuts back to my commentary about competition. I would suggest that among the things we are going to need to do in order to become a leader—and we are not now, in absolute size or in technological advancement—will be to focus much more on the commercialization of the ideas we have, so that they can be scaled up into competitive, export-led industries.

The Chair: Thank you.

Mr. Bossio.

Mr. Mike Bossio (Hastings—Lennox and Addington, Lib.): Thank you, Chair.

Thank you so much to our guests. This has been an outstanding conversation so far. I have so many questions and I'm going to dive in.

I'm going to apologize to the rest of you, but many of my questions are going to be focused on Mr. Ragan, because I found some of his comments really interesting.

Mr. Ragan, do you feel that we could reach our Paris accord pledge through regulations alone, with nothing else, no other...?

Prof. Christopher Ragan: Yes, we could do so, but at a much higher cost to the economy than is necessary.

That is the fundamental problem with regulations. Regulations, of course, are of different types, but the primary advantage of a carbon price relative to what we often call command-and-control regulations is that you achieve your outcome at a much lower cost to the economy.

I could tell you about our estimates for that, if you like.

You have probably heard of and perhaps spoken with Mark Jaccard, at Simon Fraser University, who advocates the use of smart regulations, which are flexible regulations. What they're trying to do is be as flexible as a carbon price and as low cost as a carbon price, but even he agrees that they can't quite get there.

(1715)

Mr. Mike Bossio: Could you send us the written estimates? I'd love to receive a written brief on that side of things.

Prof. Christopher Ragan: I can direct you to a report called "The Way Forward", from April or May of 2015.

Just to give you the number, if you'd like it, we did a modelling exercise—a very practical modelling exercise, Mr. Fast, but a modelling exercise nonetheless—in which we ran a horse race province by province between—

Mr. Mike Bossio: I'm sorry, I really apologize, but I have so many questions that I need to ask you, and I don't—

Prof. Christopher Ragan: Oh, I'm sorry.

Hon. Ed Fast: I like the horse race. I'd love to hear the horse story.

Mr. Mike Bossio: If we have time at the end, that will be great.

Can we reach it through being a carbon sink alone, through our forests, our farmlands? Could we achieve our Paris accord pledges just through—

Prof. Christopher Ragan: I'm not a tree expert, but my strong sense is no. You would probably have to cover Canada 10 times more with trees and other carbon sinks.

Mr. Mike Bossio: Also, trees eventually release that carbon. Many people try to say, though, that we're carbon negative because we're a big, massive carbon sink.

Prof. Christopher Ragan: I think the answer is no on that.

Mr. Mike Bossio: Right.

Could we reach it through straight infrastructure investments alone? Would it be more cost-effective to do it that way, rather than...?

Prof. Christopher Ragan: Those are two different questions. Could you do it? Probably you could not. Would it be cost-effective? Almost certainly the answer is no.

Mr. Mike Bossio: Okay. Can we reach it through emissions standards alone, with once again the cost of doing so?

Prof. Christopher Ragan: Almost certainly we could not. I'll just go with no.

Mr. Mike Bossio: It's a double negative in and of itself, isn't it?

I guess what I'm trying to get at here is that you have to take a multi-faceted approach in order to achieve our Paris accord target: our investments in transit and innovation, in infrastructure, mitigation through waste water, our emissions controls around methane and vehicle emissions, and finally, putting a price on pollution becomes the cap on top of it all towards moving to achieve our Paris targets.

Would you agree that having a multi-faceted approach, once again, looking at the political reality of just having a price on pollution only, for achieving our Paris targets?

Prof. Christopher Ragan: Let me answer a little carefully.

I think it is true that you probably want to have a multi-faceted approach, but policy-makers should be careful about how much emphasis they place on non-pricing approaches, because they tend to be very expensive.

We wrote a report at the Ecofiscal Commission called "Supporting Carbon Pricing", which was all about the kinds of non-pricing policies that complement a carbon price. Not all policies do. Some policies just don't work that well to complement a carbon price, and some do it at very high cost, but some do it well. I would encourage policy-makers not to just go for the multi-faceted approach, but to go for the low-cost package.

Our work suggests that a carbon price will be by far the most important element of that overall package.

Mr. Mike Bossio: At the end of the day, the ultimate cost is that of doing nothing.

Prof. Christopher Ragan: Indeed, there is a cost of doing nothing, and there is probably a cost of doing something. We think the cost of doing something is less than the cost of doing nothing.

Mr. Mike Bossio: If we had done this a generation ago, we wouldn't be having this conversation today.

Prof. Christopher Ragan: A generation is a long time ago.

Mr. Mike Bossio: We are the "first generation" to know that something could be done and, as the quote ends, we're "the last generation" to have the opportunity to do something about it.

Prof. Christopher Ragan: Was that a question?

Mr. Mike Bossio: Yes.

Prof. Christopher Ragan: Sure. How about this? I think this is the generation right now to do something and to put us on a good path, which will change over time, but there's no good argument for delay.

Mr. Mike Bossio: Thank you.

The Chair: Mr. Lake.

Hon. Mike Lake: Thank you, Mr. Chair, and thank you to the witnesses. I really like the conversation we're having today.

One of the things I've always found in moving agendas forward for the betterment of Canadians is that we have to try to focus on finding that common ground. All too often, we get lost in our political debates and can't find our way to even have a conversation about something.

Chris, I really found your comments about carbon pricing refreshing. The fact that you're obviously a huge advocate for carbon pricing...and I'm using your language there. Back in my riding, my constituents would probably almost universally use "carbon tax". You're a big advocate, but you say that it needs to be better explained and should be vigorously debated. I think that's what is critical here.

We've had a conversation as a committee about the possibility of having a six-meeting study on carbon pricing specifically, because it's obviously the pillar of the framework. I do think that Canadians need to have a better understanding—from both sides—about where both sides are coming from. What do you think about that idea?

(1720)

Prof. Christopher Ragan: To have six meetings all on carbon pricing...? It sounds like a blast.

Voices: Oh, oh!

Hon. Mike Lake: We get three—

Prof. Christopher Ragan: I'm all in favour.

Whether or not you invite me, I'm all in favour.

I think it is a really important issue, but it's not just in this room that we need to be talking about carbon pricing and other policies. It's out there.

Hon. Mike Lake: We are the environment committee and representative of Canadians, and—

Prof. Christopher Ragan: Fair enough. We do what we can.

Hon. Mike Lake: —it seems like this would be a place to do that.

Catherine, you talked about expecting leaders to have something to say about climate action. Of course, prior to the last election campaign, I think parties came out with different.... Obviously government has a position, but for the opposition parties, I believe the Liberals came out with their plan in terms of their position a few weeks or maybe a month or so before the election. I think that's a very good point, though. We're going to be coming out with our plan in a short while, and we'll be able to have a conversation about that and compare notes.

One of the things you said that really struck me was that we need to do what we say we're going to do. To me, that is absolutely critical. Too often, not just on climate but on international development and other things, we're not able to accomplish what we say we're going to do.

One point that I would maybe take issue with is that you said we need to do things that are not subject to the vagaries of the election cycle. The challenge we have is that we live in a democracy, and if we take action that the public doesn't support, that action isn't going to be sustainable. What my constituents would say right now is that we're running \$20 billion in deficit. Every year, we're spending \$20 billion, and we're not in a global economic meltdown like we were in 2010. There's no reason for us to be going down that road. What that's going to do is handcuff our ability to spend money on the things that are really important to Canadians moving forward.

Coming back to the need to do what we say we're going to do, we heard from the Pembina Institute that we're 66 megatonnes—I think that's what they said—behind our Paris Agreement target in terms of the track that we're on right now. We heard from Greenpeace that we're even further behind than that.

I imagine that Chris, Catherine and maybe Dominique can weigh in on this, and you, Michael, if you want to. Right now, given the track we're on, how far behind are we?

Maybe we can start with Catherine.

Ms. Catherine Abreu: On the latest numbers we have, I can say with confidence that it's 66 million tonnes behind our 2030 targets. The fact that the Ontario premier has decided to end all climate action in that province puts us further behind. I don't know what those numbers are yet.

When I say that it is necessary that climate action not be subject to the vagaries of election cycles, I don't mean that climate action should not be an issue that is debated in a democratic system. I think that debate is really necessary. What I mean is that we currently find ourselves in a situation where we are one of the few countries in the world, actually, where climate action remains a partisan issue.

My family are card-carrying Conservative voters. They care about climate change, but they don't often get to hear from the folks they elect who represent them what plans are being laid to take action on climate change. We can disagree on tactics, but we cannot disagree on the necessity of action.

Hon. Mike Lake: Yet the interesting thing, as you've mentioned, about the Ontario election—we've seen it in other parts of the country as well—is that Canadian voters are obviously taking some issue with jurisdictions that have a carbon tax right now. This is why I think there's an important conversation that needs to happen as we head towards a federal election.

I do want hear in terms of the targets what other witnesses might have to say about what track we're on right now.

● (1725)

Ms. Dominique Charron: Thanks.

I can speak to what IDRC does, which is really focused on the developing world. On the resilience space, I'd have to defer to Environment Canada for progress in terms of the targets domestically.

Hon. Mike Lake: Okay.

Chris.

Prof. Christopher Ragan: I think that to actually pose the question as "how far behind we are" in achieving the targets.... With due respect, I think it's the wrong question.

Hon. Mike Lake: Okay. Answer the right question.

Prof. Christopher Ragan: Thank you.

The reason why I think it's the wrong question is that while I understand the need for any government to set a target and then try to achieve it, we can have a lot of debate about what the targets should be. What we really can't have a debate about is the need to reduce emissions.

To me, it doesn't matter much whether we're 5% off the target or 15% or five years behind. Where we are is that we need to start. We need to start in a very serious way and move forward by reducing emissions. You can debate—

Hon. Mike Lake: Where are we, though? I do want to know where we are relative to the targets.

Prof. Christopher Ragan: I will defer....

Hon. Mike Lake: You're representing a different kind of initiative.

Prof. Christopher Ragan: I am not an expert on the number of tonnes we have to go, basically because that's not our focus. Our focus is that every government in this country—every government, provincial and federal—has indicated a desire to reduce emissions. Our starting point is that if you would like to reduce emissions, we can now bring our expertise to bear about the best way, the best economic way, to reduce those emissions.

You need to start. You put a policy in place and you move forward, and then you can continue debating about where we actually have to be. Frankly, there's not much debate about the need to reduce emissions. The debate is whether we need to reduce by 50% or 60% by 2040 or 2050? When you're in 2018, I'm worrying less about that precise debate and more the need to get going with good policy.

The Chair: I'm going to jump in there and move to our final questioner for the afternoon.

Julie.

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

Thank you so much for being here, all four of you. I also have a lot of questions. I'll try to ask them very quickly.

I want to say that I very much appreciate the honesty in terms of the things we're doing well, the things we need to improve on and the things we need to do better and focus on. I really appreciate the very clear message you're sending, which is to move forward on the plan.

I think a couple of you have made the comment about how the price on pollution is just one part of it. We have a pan-Canadian framework. A lot of other elements are part of our getting to where we want to get to, which is achieving our Paris target and actually reducing our pollution.

With that, Mr. Ragan, you mentioned that we have to do a much better job of communicating. We all agree on that. I was on Portuguese TV the other week trying to explain this. It was not an easy thing for me to do. Who does it well?

Prof. Christopher Ragan: I would be the wrong person, for sure.

Ms. Julie Dzerowicz: Okay. I'm not saying you would.... We know that other countries—

Prof. Christopher Ragan: Rona Ambrose speaks Portuguese.

Ms. Julie Dzerowicz: No, I'm not talking about Portuguese-

Prof. Christopher Ragan: Who would be the right person to do it?

Ms. Julie Dzerowicz: What I'm talking about is, who explains for other countries, other nations and other regions how they're reducing their emissions and explains their price on pollution and their plan? Is there a country that does this better?

Prof. Christopher Ragan: Is there a country that explains carbon pricing better? That's a great question. I don't know the answer, honestly.

I think we can do it.

Ms. Julie Dzerowicz: Yes, I do too.

Prof. Christopher Ragan: I think we can do it. We do it by starting. Then you see which part doesn't make it, and you do it again. You keep talking about it, you keep asking questions and you keep explaining. You do it in newspapers and on talk radio, in op-eds and in television interviews. You do it wherever you can.

Ms. Julie Dzerowicz: I think that's what we're planning on doing. I just wanted to know whether you knew of a jurisdiction that had done it well.

I'll ask you a second question. You mentioned a couple of issues that we have to grapple with. They are the impacts on business competitiveness and household purchasing power, which I think we've tried to address as we've made announcements, and also that we can design policy to address both of those impacts. Do you think what we're putting in place is a good plan moving forward? Are there any other suggestions you might have for us?

Prof. Christopher Ragan: I think it is a good plan and I'll tell you why it's a good plan in three parts.

You're asking about the federal backstop.

Ms. Julie Dzerowicz: Yes.

Prof. Christopher Ragan: If the federal backstop is implemented in a province that does not have its own carbon pricing, first, it's good because it's a broad-based carbon price. "Broad-based" meaning that it applies to a big chunk of the emissions in a province.

Second, it's well designed because it is actually giving a significant share of the carbon pricing revenues from the fuel tax

back to households and restoring their purchasing power. It's also saving some aside for small businesses, municipalities, etc. You could quibble about the details, but in broad outline, that is a smart design.

The third thing is that the federal backstop includes an outputbased pricing system. The last two things are really modelled and inspired, in part, by the Alberta policy. The output-based pricing system in the federal backstop is well designed to deal with the tough problem of maintaining business competitiveness.

On those three elements, the federal backstop is a well-designed plan. You could certainly quibble about details, but in broad outline, it's a good policy.

• (1730)

Ms. Julie Dzerowicz: Thank you.

The Chair: Although you haven't used your six minutes, we're at 5:30. I believe people need to move on, to catch flights and things like that.

I hate to cut it off, but we're at the end of the meeting. I wanted to jump in and thank the witnesses for their flexibility and understanding today and for their testimony.

If you have reports or things that you'd like to submit, and there have been some references to material, please send it in to the clerk, so that we can have it translated and circulated to the committee.

Thanks, everybody, for a great session. Have a great weekend.

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