



HOUSE OF COMMONS  
CHAMBRE DES COMMUNES  
CANADA

# **Standing Committee on Environment and Sustainable Development**

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ENVI • NUMBER 128 • 1st SESSION • 42nd PARLIAMENT

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**EVIDENCE**

**Tuesday, October 30, 2018**

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**Chair**

**Mr. John Aldag**



# Standing Committee on Environment and Sustainable Development

Tuesday, October 30, 2018

• (1535)

[English]

**The Chair (Mr. John Aldag (Cloverdale—Langley City, Lib.)):** We'll get started. Sorry for the brief delay.

Welcome to our guests, today. We have the Centre for International Governance Innovation with Silvia Maciunas. Then we have, as individuals, Chris Turner and John Drexhage.

Peter Fonseca and François Choquette, welcome to the committee as well.

We have our three guests, who will each have 10 minutes for opening statements. As I mentioned when I introduced myself, when you get to nine minutes I'll give you the yellow card showing that you have one minute left, and then the red card means please wind it up. Then we'll get into our questions back and forth after that.

Who would like to go first?

Silvia, would you like to start us off with your opening comments?

**Ms. Silvia Maciunas (Deputy Director, International Environmental Law, Centre for International Governance Innovation):** I'd be happy to do that. Thank you.

Thank you for the opportunity to be here and to highlight some of the work we're doing in the area of trade and low-carbon economy.

My name is Silvia Maciunas. I'm the deputy director of the environmental program at CIGI, which is a think tank based in Waterloo, Ontario. It's an independent, non-partisan think tank. Our focus is on international governance. We work in three areas: one is international law, and the other two are global security and politics, and the global economy. Those areas often interrelate, as I'm sure we are all aware.

The law program, called the ILRP, international law research program, works in four areas: international economic law, international environmental law, international intellectual property law and international indigenous law.

I am the deputy director of the international environmental law section. In that area we have three areas of focus. I'll be finished my lists pretty soon. We work on climate, oceans, and emerging issues of global environmental governance.

On international climate law, we look at issues relating to the UNFCCC, the convention on climate change, and the Paris

Agreement. We also look at linkages between the climate regime and other international instruments. The reason we look at that is that I don't think you can solve the climate problem solely within the UNFCCC or the Paris Agreement. You have to look at how other elements of the international legal framework fit into that.

There are many linkages between climate and trade. The UNFCCC remains the primary instrument to address climate. Of course, the WTO and its related agreements and the many regional and multilateral trade agreements are the instruments to deal with trade. We have to look at how those link together, because there is a fear in the environmental law community that some of the trade rules may in fact limit domestic responses on climate.

As you may know, the Paris Agreement has very general obligations with respect to climate measures. There is no standard set of measures that must be taken by parties. There is no one size fits all; therefore, it is a little bit difficult to assess what might work and what might not.

Canada has a history of regional and bilateral trade agreements that address the environment. You may already be familiar with many of these. They generally have a requirement for parties to strive to provide high levels of environmental protection and to avoid lowering standards to attract trade investment. They were originally housed in separate side agreements, and currently the model is to have an environmental chapter within the trade agreement.

Recent models, such as the TPP and the USMCA, have included more substantive provisions regarding the need to implement specific multilateral environmental agreements. They also include some innovative provisions about subsidies—for example, removing fishing subsidies for overfished stocks, as well as requiring conservation measures for flora and fauna. The trade agreements have gone a long way in accommodating some of the environmental concerns that are out there.

The TPP is unique in that it has a binding dispute resolution process. The CETA is very interesting because it has an innovative approach that requires a work program on trade rules and environmental regulation. It also commits Canada and the EU to facilitate and promote trade investment in environmental goods and services, which comes close to the area that this committee is concerned about: clean tech.

There are other provisions in bilateral trade agreements also of interest. There's one between Japan and the EU that requires both parties to effectively implement the UNFCCC and the Paris Agreement and includes an obligation to promote the contribution of trade to the transition to low greenhouse gas emissions and climate resilient development. That's an interesting model that Canada might think about when it's negotiating its regional and bilateral agreements.

An agreement between New Zealand and Taiwan commits to reducing tariffs on environmental goods to zero. Again, this is possibly a model for Canada's agreement to try to move along the agenda on environmental goods.

● (1540)

The recommendation would be that Canada continues to conclude innovative provisions in its regional and bilateral trade agreements, particularly in areas that might assist with the transition to a low-carbon economy and with trade of environmental goods and services.

The WTO has some provisions that allow for environmental agreements. It has an environmental exception that allows for certain measures if they are necessary to protect the human, animal and plant life and health, but that requires that an issue be brought to the trade dispute level. That is a lot of uncertainty, and one never knows until that trade dispute is completed whether the measure will survive.

The issue, then, is how we can move forward on some of the issues. Does the WTO have enough in it? Do the environmental agreements have enough in them? How do we manage some of the outstanding issues that might impede clean tech and the transition?

In the reading and the work that we've done, we've identified a number of issues. One is the issue of subsidies: how to address and encourage green subsidies while taking steps to step back from fossil fuel subsidies, how to take into account the carbon footprint of products, and how to increase trade in environmental goods. All of those, I think, would assist in developing clean tech for Canada.

Subsidies are important in the context of the development and diffusion of clean technologies. They are controlled by the Agreement on Subsidies and Countervailing Measures, one of the WTO agreements. Green subsidies fall under the category of actionable. If they are specific to an industry or a group of companies and they cause an adverse impact on trade, they can be challenged at the WTO.

In the case of the Canada-FIT case in Ontario, that case was taken up by the WTO. It was challenged. Eventually there was no finding that there was a subsidy. This was less because there was really not enough evidence of a subsidy and more because of some rather convoluted and highly criticized legal reasoning, which talked about the establishment of two separate markets. Many commentators in this area are not confident that, if there were a subsidy involved in supporting renewable energy or other clean tech, it would actually pass the test for the WTO. The law is still highly uncertain.

Subsidies have been shown to be an effective tool to encourage investment in clean energy and clean tech. FIT programs are used broadly. More than 60 countries have used them, and they have been

found to be quite effective in increasing investment in renewable energies.

What we learned is that the WTO is blind to the public policy rationale for the subsidy and, therefore, subsidy regimes may be at risk from trade rules. The local content requirements of any subsidy program will certainly be struck down, but there might be ways for Canada to lead in this area. Like-minded countries could seek to negotiate a clean-tech agreement that would deal with subsidies. There is an agreement already on agriculture that provides special rules for agricultural subsidies, so it wouldn't be the first time that this would be approached.

Like-minded countries could also seek to negotiate a clean-tech agreement outside the WTO on a regional basis. Provisions on subsidies could be included in bilateral or regional agreements, and Canada could also propose an interpretation within the subsidies agreement to allow subsidies with a justifiable public purpose.

I am going to quickly go through some of the other areas, and then maybe we can elaborate during the questions.

The other side of the green subsidies is how to take steps to address fossil fuel subsidies, which tend to be a perverse incentive but are widely used by most developed and developing countries. In this area, Canada has committed to an international review of its fossil fuel subsidies. Transparency on this matter is important, and Canada should, in good faith, continue to seek to find ways to address fossil fuel subsidies.

Trade in environmental goods has been stalled at the international level. You may be familiar with the fact that there were negotiations going on with regard to environmental goods and services. The last session was in 2016, and nothing else has taken place. It's not impossible to have that kind of agreement. APEC, an agreement between 21 countries, has an environmental goods list on which tariffs were lowered. I think the solution here would be to try to restart negotiations on a bilateral or regional basis, and perhaps seek a way to define environmental goods and establish a process of experts to do that.

● (1545)

I have one more issue and one solution to discuss.

**The Chair:** Please do it really quickly. We're over time.

**Ms. Silvia Maciunas:** The other issue is the carbon footprint, how much carbon is used in production, and that's not recognized as differentiating between products. Canada could work to have an interpretation that would recognize that kind of process in the WTO.

Finally, one area that should be considered by Canada and where Canada could be a leader is in taking steps to develop a climate waiver. Waivers are a tool used under the WTO. They allow members to not comply with their obligations for exceptional circumstances. You don't need consensus. If you had a three-quarters vote, that would get a waiver through. It could be done with respect to climate measures. A group of like-minded countries is needed to pursue this.

Again, this is an area where Canada could take a role. Certainly after the IPCC, there are exceptional circumstances for climate change.

Thank you very much.

**The Chair:** Thank you for those opening comments.

Now we'll go to Mr. Turner for his comments.

**Mr. Chris Turner (As an Individual):** My name is Chris Turner. I'm an independent writer, journalist and communications consultant based in Calgary.

Thank you to the committee for this opportunity to address you, and for the opportunity to share a little bit of the knowledge that I've gathered over the last 15 years or so, where climate change solutions and the global energy transition have been my primary beat as a writer and journalist.

I wrote two bestselling books on that transition, on climate change solutions: *The Geography of Hope* in 2007 and *The Leap* in 2011. More recently, I wrote a book on the collusion between Alberta's oil sands and the climate change politics that's called *The Patch*. It is in stores now and it makes a lovely gift, I hear.

I've also given dozens of keynote and conference presentations and the like over the last few years to almost everyone under the political sun, so to speak. It's been everyone from environmental groups like Environmental Defence to organizations like the Canadian Association of Petroleum Producers, because the issue of climate change is so universal. There's a reason for just about everyone to hear where we're going on this.

I've also done work with a handful of NGOs, working primarily on energy more than the environmental climate side, with groups like Pembina Institute, Clean Energy Canada and the Smart Prosperity Institute. I was a writer on Natural Resources Canada's recent Generation Energy report. I got very close to the thinking of a very broad swath of business and public society here in Canada on the issue of outlining a vision for Canada's energy sector for the long term.

On the parts of the pan-Canadian framework that this committee, I understand, is working on, probably the one I'll be speaking to most directly will be positioning the country as a global leader on clean energy and innovation. That's really been a large focus of my work in the last few years. Hopefully, I can give you a little insight into that. I won't speak too long off the top. I'll allow you to feel free to ask me questions and I'll answer them if I can.

The first point that I'd like to make clear, which is hopefully a given now, is that there is a global energy transition under way. It is moving faster than ever. It is gaining more momentum than ever, as

we move from fossil fuels as our primary energy sources to renewable fuels.

Mike Liebreich of the Bloomberg New Energy Finance group likes to say that the transition is now probably unstoppable. I would take the "probably" out of it. All I've seen over the last 15 years is a steady acceleration of the success of clean energy and technology, and the constant leaping over every single alleged limit or check on growth that was supposed to happen by now.

To use Bloomberg's numbers, it is believed a third of all the world's electricity will come from wind and solar by 2040, a third of all the vehicles on the road by 2040 will be electric, and most importantly, the best opportunities for economic growth between now and then will be in building out those sectors. The scale is already in the trillions of dollars and only getting bigger.

This transition represents both a major challenge to Canada's established resource sector, but also an extraordinary once-in-a-generation opportunity both for those traditional resource sectors to rethink some of the things they're doing, and obviously, for the economy as a whole to become a global player in this emerging market.

My colleagues at Smart Prosperity Institute like to quote Dominic Barton from McKinsey on this. He said:

Canada has an unparalleled mix of resources to deal with the implication of these global trends. We are a leader in natural resources and energy production. We have a skilled labour force... We have a strong financial system that helped us survive the financial crisis remarkably well. Canada has never been in a better position to be a global leader.

How to take that lead should be a high priority as we discuss the implications of the pan-Canadian framework. In my opinion, it's an excellent platform to build on. It corrects the market failures that allowed the climate change problem to deepen as much as it has. I'm not an energy economist, but I know a few and they more or less universally agree that a price on carbon pollution is an absolutely essential piece of any serious long-term climate strategy. I agree with that assessment.

The second piece is the carrot, so to speak, along with the stick. That would create a robust clean-tech economy both here at home and with the ability to export solutions around the world. This is building cleaner and greener trade.

We need to find good policies at every level of government, not just the federal government, to encourage that growth. Everyone is sort of starting from scratch. This is all very new territory, although Canada is ahead of the curve in some important regards.

● (1550)

We begin from a very clean grid nationally, if we think about Canada as having a single electricity grid. More than three-quarters of it already comes from non-emitting sources. That's a massive asset. That would be the envy of most of the regimes working on this stuff around the world, to begin with the fact that you already have a very clean grid. Business opportunities are already opening up because of that, because companies around the world are looking to shrink their footprint. There is huge opportunity there.

We're already phasing out coal, which for most countries, is the lowest-hanging fruit in dealing with climate change, and we are already investing significantly in clean technology, including carbon capture and storage. All the serious modelling out to about 2050 sees a huge role for this and none of the technology is market-ready to date, so there is a pretty massive opportunity sitting there for the countries and companies that can figure out how to affordably and economically capture carbon and ideally turn it into something useful.

On this matter I would invite you to read the Smart Prosperity Institute's report "Accelerating Clean Innovation in Canada". I contributed a little to this. It's one of the best, fast reads I know of on the subject of specifically what Canadian governments should be doing to create the kinds of policies that will encourage more growth. I'll give you the short version, which is that we are very good in Canada at early stage development of clean technology. We have very good research facilities, very good universities, smart people, strong institutions, all that stuff, but we are failing with troubling regularity to get these ideas from lab to marketplace. Our global share of the clean-tech market in recent years has declined, something in the order of 40% at last check, and in large part this is because the ideas are being turned into commercial properties outside of Canada.

What can government do? As I said, what it's begun to do with the pan-Canadian framework is an excellent start. It corrects market failures and has instruments in place to promote market growth here at home. The important thing to realize is that there are very serious structural barriers to entering the clean-tech marketplace that require government intervention on a number of levels.

Often what clean-tech solutions are correcting doesn't cost the polluting company anything, even with a carbon price in place, so they are undervalued in the marketplace. There are ways to correct for that. These new clean-tech innovations often face major risks and uncertainties. They are in new markets. They are blue sky technologies in some cases. We run into split incentives and insufficient infrastructure. Think of things like electric cars with nowhere to plug them in. Think of things like the fact that if you want to make a building more efficient, it's the building manager or owner who has to pay for that and it's the tenants who have to pay the energy bills. You often have very different incentives when a clean-tech solution is being brought into place and there are things that governments can do to correct for those.

You can address these obviously with regulations, certain kinds of funding, some of which is beginning to emerge, but also through procurement by becoming an early adopter, an early customer for Canada's clean-tech solutions before they move out and ideally begin to become a part of a global solution to climate change. We're already seeing that kind of innovation in many sectors. Name one and there's often a Canadian company or two doing good work in it, from energy storage to carbon capture. Batteries for electric ferries is something that Canada's already doing well, cutting emissions in the production of concrete, on and on, but this stuff does need sustained focused support to get from where it is right now, often in the very early stage of development, to the marketplace.

One way to put it, there is a company I know fairly well called Carbon Engineering, based in B.C. now. Their research emerged out

of the interest in Calgary and Harvard. A guy named David Keith was the primary guy working on it. This is technology to capture carbon dioxide directly out of the air, very revolutionary stuff. It could be a decade or more before there is anything like a marketplace for this, but as the guys working on it would tell you, when that marketplace emerges, it will be massive. One of the founders told my colleagues at Smart Prosperity, "Make no mistake, this is a race. The expertise around this topic is going to coalesce somewhere. We want it to be in Canada."

That is what we hear from clean-tech innovators as a rallying cry: "We know we can get there but we know we need support to do so." That is the place of government, to step in when they can.

The core lesson I learned working for the last six months on the Generation Energy Council at NRCan was that the difficult thing with climate change solutions is that they take a very long time to come into effect, the rewards are far down the road, certainly past the next election cycle, and it's very easy to get into terrain that makes everyone in the room uncomfortable.

That discomfort is part of the nature of the change and the shift that we need to be driving, so I would invite you to get comfortable with that discomfort and understand that these solutions are absolutely the most important thing that Canada can be working on right now. Our children and their children will thank us if we get this right and will hold us to task for it if we get it wrong.

● (1555)

There is nothing more important than developing these solutions. There is no higher priority than solving this problem. It's existential and it will last well past my lifetime, so I urge you to continue to drive Canada forward as a leader in this regard.

Thanks.

**The Chair:** That was perfect timing.

Now, Mr. Drexhage, over to you for your 10 minutes of opening remarks.

**Mr. John Drexhage (Consultant, Drexhage Consulting, As an Individual):** Thank you very much, Mr. Chairman.

I think it's entirely appropriate that we follow the order that we did.

I originally hail from Edmonton, Alberta. I worked on issues relating to climate change and sustainable natural resource development for over 25 years with a wide range of interests. To mention a few, I worked with the Government of Canada, the International Institute for Sustainable Development and the International Council on Mining and Metals. I currently work with the World Bank and the Canadian Council on Renewable Electricity.

I consider myself a progressive pragmatist who has been characterized by environmentalists as crossing the aisle and suspected by many parties in the extractives industry of concealed intentions. So be it.

In this intervention, I will focus on the issue of internationally transferred mitigation outcomes, ITMOs, and Canada's implementation of this key provision in the Paris Agreement. In that capacity, I represent no one but the person who sits before you here.

"ITMOs" represents the latest buzz phrase for internationally based carbon market mechanisms, the idea being that entities, whether they are governments, business or civil society, have the option to meet greenhouse gas emission targets, and by the way also help to promote clean technologies, by investing in reductions overseas.

One would think that Canada would have taken advantage of such an option, given the nature of its resource-based economy and the challenges therein to meet our climate commitments, but such is not the case.

Why? In my view, the most significant barrier is conceptual and/or cognitive. There is a history of misperceptions around the issue of international emissions trading in Canada, and this has been the case for over 20 years. Many in the environmental constituency perceive international purchases as lacking in environmental integrity and as burdening entities outside of Canada with emission reductions when the onus should lie on the large polluters at home.

On the industry side, there are concerns that public funds will go towards purchasing so-called emission credits to meet international commitments rather than use those funds towards supporting greenhouse gas reduction technologies and practices at home. This is also a concern shared by many provincial governments that ITMOs should not represent the competitor or drawer on funds that might otherwise support domestic actions and policies to address climate change. What is lost in these objections is that this flexibility will always be key for Canada to be able to meet whatever greenhouse gas reduction targets it may take on.

Norway is instructive in that regard. Its economy is even more reliant on fossil fuel exports than Canada's, yet it takes on and implements much stronger climate actions and targets both at home and abroad. A key part of that is their willingness to invest in strong, credible greenhouse gas reduction and sequestration projects beyond its national borders, helping them to reach their targets and to share expertise and know-how abroad, thereby helping their burgeoning clean energy industry and building capacity in other countries to do so.

Simply put, ITMOs can be developed and implemented in such a way that they work to support and complement the domestic development of green technologies, policies and practices in becoming a central feature of Canada's economic and development future.

Specific criteria to develop an ITMOs regime in Canada would include the following. It clearly avoids any potential for double counting of greenhouse gas reduction credits or allowances. It promotes Canadian expertise and technologies in the green export market. At the very least, it effectively addresses any potential conflicts with UN sustainable development goals, and preferably, demonstrates ways in which it promotes sustainable development goals in host countries. It should be developed in close collaboration with the provinces. The decision in that respect of the CCME and the

pan-Canadian framework to address article 6 together, not as a federal initiative but clearly and truly as a federal-provincial initiative, is a very positive step in that regard.

Implementing ITMOs at home would provide tangible benefits. It provides Canada a means to ensure that it meets this country's Paris commitment. This is a critical issue, as Canada has not met its international climate change commitments on four previous occasions, and I hasten to add that those targets were established under both Conservative and Liberal governments. Even more importantly, it provides an opportunity for the export of relevant Canadian technologies, practices and expertise that will further strengthen the development of a green economy model throughout Canada and globally.

I already spoke to you about Norway. I would like to bring in another example. One need only look to Japan and the model they have developed under the joint crediting mechanism. Working closely with industry, they have successfully invested in greenhouse gas reduction opportunities that also work to promote real economic opportunities.

• (1600)

There are some who argue that ITMOs be applied in future years of the pan-Canadian framework and that its first focus should be towards greenhouse gas emission reductions within Canada. Yes, that may be one option, but in my view it smacks of desperation, and as such would almost certainly become politically contentious: We've tried everything else, so let's try this one last saver called ITMOs. Much more preferable is an approach as laid out above—a strategic investment that is developed in support of and complementary to domestic actions, which will also help the federal government to close its emissions gap.

Finally, it should be noted that Canada has been a leader in the negotiations around article 6 of the Paris Agreement and ITMOs. In that respect, once a comprehensive elaboration has been agreed to internationally—hopefully at the next upcoming talk in Poland—it is incumbent that credible and robust systems are put in place. Canada has a unique opportunity to show leadership in this area by demonstrating that international actions to address climate change that also work to help countries meet their emission commitments are a critical way forward, as countries look for ways to accelerate commitments to reduce greenhouse gas emissions globally. When it come to domestic actions and international credits, it is not one or the other. It is one and the other.

I also have thoughts around what a Canadian ITMOs architecture might look like, and if the committee is interested, I could send those in a separate submission.

Chair, thank you for your time.

**The Chair:** Excellent, and that's ahead of schedule. Thank you for your comments.

I should have mentioned at the beginning as well that we may be having a vote this afternoon. We're just waiting on word to see if that's still in place. We may be winding up as early as 5 p.m. I'll just play it by ear. I'll let the witnesses know that we may not be here for the full duration because of that. That will evolve as we go through the next hour and a bit.

Now we'll get into the questions and answers. First up is Ms. Dzerowicz.

• (1605)

**Ms. Julie Dzerowicz (Davenport, Lib.):** Thanks so much.

We've had three completely separate presentations, with a lot of information. I'm a new committee member, so this is all good. I have a big interest in this area, so I'm very excited to be here. I really thank you all for your presentations.

I'm just going to start with you, Mr. Turner. I was taking down my little library in my house and I actually have your *The Geography of Hope* book. Thank you very much for your pitch for your Christmas book recommendations. I remember reading it when it first came out. One of the things I loved about it was that it actually went around the world and talked about how countries were moving towards a low-carbon economy, and you focused on some of the innovations, the best of what was happening around the world.

As you know, we have our pan-Canadian framework and we've just announced our price on pollution. I would love to hear from you how it is that we can do better in terms of bringing our population onside. In terms of educating the population, we talked a little about ITMOs as part of our conversation, but that's not really part of our lexicon here. We're just trying to talk about a price on pollution or carbon pricing.

What is it that you might be able to add as part of the discussion in terms of recommendations for us?

**Mr. Chris Turner:** I would say, first of all, that it's one of the most difficult aspects of the entire complex nature of dealing with climate change. It's something where people have different understandings of what exactly it means. Are we talking about weather? Are we talking about long-term changes? There's a lot of spotty or incomplete information in the general public to begin with.

One thing we've discovered since I wrote that book in 2007 is that there's a feedback mechanism. An example I've used recently is this. You think about how easy it was and how quickly we convinced people that plastic straws represent, to some degree, some sort of public risk or negative aspect in public. People understood viscerally that this stuff winding up in the oceans and causing harm to marine environments is inherently bad. If I don't use the straw, the problem begins to go away and I've improved it.

Climate change, because it's so diffuse over time and space, doesn't offer those kinds of immediate feedback mechanisms. If I stop driving my car and start to take the LRT to work, nothing immediately changes in my environment except that I'm getting to work a different way.

Engaging the broad public in it has proven extraordinarily difficult. People don't rally in the streets in favour of a price on carbon. These are not things that make it really easy to score a

political win. Certainly one of the things we tried to do on the Generation Energy Council was to think about it in terms of what the Canadian home looks like if it's closer to zero emissions, and talk in very specific ways about your daily life and the changes, which are largely positive, that would come from that.

I think that part of the conversation gets left out when we're talking about cutting emissions and putting prices on them. We never get to the part where, actually, some of this stuff is really great. The idea that you have a car that doesn't need to be fuelled for \$60 a tank at the gas pump is a net positive if it's presented as such. A house that uses way less energy yet is actually more sophisticated in terms of using the energy that it does, that is a net positive if we can talk about it that way. Those two things don't get matched up as much as they need to.

**Ms. Julie Dzerowicz:** Is there any country that...? I think one of the examples you might have talked about was Germany. It seems like it was really a 30-year process that got them from starting a national conversation, people writing about it, to actually moving their population to where it needed to go.

Were there any sorts of nuggets or tips that you might be able to draw in from other countries in terms of shifting over the conversation, or is it just really having that conversation and the conversations that you're suggesting right now?

**Mr. Chris Turner:** There doesn't seem to be a quick shortcut in any case. For northern Europe, the European Union generally I would say, this was not as difficult a conversation to have because energy prices were already very high relative to Canada, where we have some of the cheapest electricity on earth. It's very hard to convince people it needs to change when that's the case.

If you look at the specific case of Germany... One of the things I would hasten to mention is that nobody is doing this perfectly. Even in the German example, which I've written about very positively, for domestic political reasons they've chosen to maintain their fleet of coal-fired power plants, which has not been good for their emissions profile, mainly because nuclear power is that much of a political third rail in Germany. Even in the German example, probably the strongest difference between where that conversation began in Germany or where it got to very quickly, and where it hasn't yet gone here, is that it was immediately seen as an opportunity to create new jobs, to build a new industry. Even when government changed and Angela Merkel's conservative government first came into power, they were not big fans of the energy transition but quickly realized there were just too many Germans benefiting from it for them to not support it on some level.

I think there's presenting it as an opportunity for industrial growth and economic growth as well as a way to tackle a major environmental problem.

• (1610)

**Ms. Julie Dzerowicz:** I have another question and I'd like to move to Mr. Drexhage.

Mr. Drexhage, you had offered that you might be able to send us some information about how we can actually get to that framework around ITMOs. I'd be very curious to see that. Thank you for that.



**The Chair:** I should mention to all our guests today that if you would like to submit anything in follow-up to the questions today that you may not have been able to state, we take briefs. They can go to the clerk. We try to encourage nothing longer than 10 pages. That can be sent in after and still be considered for the report we're working on.

Next up we have Mr. Fast for six minutes.

**Hon. Ed Fast (Abbotsford, CPC):** Thanks to all of you for appearing.

At our last meeting we were getting into a discussion on ITMOs and then the bells went and we all had to leave, so we never really got to the nub of the issue.

I agree with you, Mr. Drexhage, that ITMOs probably represent one of the most significant things Canada can do, especially given how well developed our technology is and the capacity we have to develop new technology, transfer technology.

Where do you sense are the best opportunities for Canada to take advantage of internationally transferred mitigation outcomes?

**Mr. John Drexhage:** That's a very interesting question.

**Hon. Ed Fast:** Could you respond per industry, and then drill down to maybe some of the big ones that pop out?

**Mr. John Drexhage:** One of the areas that I think has always been massively overlooked is in the petroleum industry, the gas flaring that goes on continuously in many of the industrializing countries. I still remember flying once from Amsterdam to Japan and it was in the middle of the night, two in the morning, and the entire sky was emblazoned like it was sunlight in Siberia because of all the flaring that was going on.

The natural gas leakage that goes on throughout eastern Europe is massive. When you're looking to try to reduce natural gas leakage in Alberta by thousandths or hundredths of 1% versus the 5% to 10% leakage that's going on in some of the countries, it just makes so much more common sense.

CCS, carbon capture and storage, is another area. It has had its issues in terms of implementation over the years.

**Hon. Ed Fast:** It's very expensive.

**Mr. John Drexhage:** But we have the Shell experience in Athabasca, which I witnessed first-hand. Those opportunities do exist.

The other thing that I find overall in terms of the broader sustainable development agenda is that it's not just hard technologies. It's the services and the expertise that we can bring as well. I think that's where particularly Canada from the solar side and from the wind side, the renewable side, small hydro.... My God, the expertise that we've had on hydro over the years with Hydro Quebec, Manitoba, BC Hydro, etc., is enormous.

There's too parochial a vision of this whole renewable grid that we have and we haven't really thought about how we translate that into international opportunities. That's another area I would identify.

**Hon. Ed Fast:** To get to the political element of this, I believe it's much easier to sell Canadians on the idea of Canada doing its part internationally by transferring its best expertise abroad and getting a

bigger bang for the buck than we would in Canada. It's a much easier sell to Canadians than a carbon tax, which we know has to be in the hundreds, if not thousands, to actually be effective.

That takes political will, and I'm not sure you'll get the political will to do that kind of taxation.

Ms. Maciunas, thanks for talking about trade. That's an area that I lived for four and a half years.

I want to talk to you about the environmental goods agreement that was negotiated some time ago. It started in 2014 and sort of petered out in 2016. It includes China, which effectively has a veto power, because it is all about consensus.

To what do you attribute the current malaise, or perhaps even failure of that agreement?

• (1615)

**Ms. Silvia Maciunas:** It's hard to say in today's environment, where a lot of trade discussions have stalled given the current political positioning of the U.S. I have heard from folks who are closer to the negotiations than us that when the administration changed in the U.S., there was less of an interest in pursuing it because there was a perception that it would not go far.

I've also heard that the mechanism they used to identify environmental goods was one of the problems, as it allowed it to become a negotiation on each item. The thought was that if there was a different approach to identifying an environmental good...because I understand there was no definition either for an environmental good.

If you either had a definition that you could assess against or you had a process where you could have a group of engineers and scientists who would identify what an environmental good was and then put that recommendation to a negotiating group, then you would have something that maybe is a little less of a negotiation between parties who are trying to simply seek trade advantages. I think there are ways to improve the process.

Of course, one of the techniques one can use in international diplomacy is that if you can't get a broad group of folks to agree to something, then you can make your group smaller. You will find your environmental like-minded groups who want to talk about clean tech and environmental groups, and try to establish some sort of agreement with that group as a start, hopefully, and then you can expand it either to WTO or others.

**Hon. Ed Fast:** That, by the way, happened with the international services agreement. They explicitly excluded certain countries, which shall remain nameless, because they used consensus as a veto tool and were able to move forward significantly.

You may be familiar with those negotiations as well.

**The Chair:** That's it, Mr. Fast. We're out of time.

**Hon. Ed Fast:** Okay.

I didn't see the yellow one.

**The Chair:** I held it there for 10 seconds.

**Hon. Ed Fast:** It's my fault.

Thanks for those answers.

**The Chair:** Mr. Choquette, we move over to you.

[*Translation*]

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

First, I want to thank you for being here this afternoon to talk about a clean economy and the fight against climate change. These are extremely important issues.

Recently, the Green Budget Coalition—which I'm sure you're familiar with—released its annual report containing recommendations for a green budget. One of the recommendations concerns fossil fuel subsidies. We have good news regarding one of the recommendations. We've reached an agreement with Argentina to ensure that our fossil fuel subsidies will be disclosed in the future.

The coalition also recommended that the Government of Canada “[initiate] work with partner countries to define “inefficient” fossil fuel subsidies.”

Are measures being taken to reduce fossil fuel subsidies? What could be done to improve the situation? I'm thinking of the establishment of partnerships with various countries around the world, such as the partnership entered into with Argentina.

• (1620)

[*English*]

**Ms. Silvia Maciunas:** I can give you some elements of an answer. I guess there are different kinds of partnerships on fossil fuels and fossil fuel subsidies. One of the issues with fossil fuel subsidies is that they seem to provide an incentive that is contrary to the incentives we're looking for to make the transition to a low-carbon economy, so in fact one could argue that fossil fuels have a competitive advantage over renewables.

Fossil fuel subsidies are less likely to be challenged, I understand, under the trade regime. I'm not a trade lawyer, but I've read a little bit about it. Because of their nature, they tend to be more diffuse. It's harder to find the challenge there in terms of harm being done.

In terms of what Canada is doing, this is a G7 initiative. I think Canada and the G7 and the G20 agreed to take steps to reduce fossil fuel subsidies in both those fora. In the G7, they're having a series of partnerships to explore fossil fuel subsidies in each of those countries. I think it will be very interesting for Canadians to see what kinds of fossil fuel subsidies there are in Canada so that we can have a debate on that.

The language with respect to the G7 and G20 declarations is rather unfortunate, because it talks about “inefficient fossil fuel subsidies”. I haven't found anybody so far who can tell me what an “efficient” fossil fuel subsidy is and what an “inefficient” fossil fuel subsidy is. That gives the negotiators a little bit of wiggle room, but we don't really know what it means.

There are countries who are working on the reduction of fossil fuel subsidies. As a matter of fact, at the latest meeting of the WTO council, it was New Zealand who was trying to move forward on fossil fuels. There are also a couple of initiatives from NGOs. I think they're called “friends of fossil fuel reform”. John might know about

this, because he has some IISD connections. There are countries and international NGOs who are working on that issue.

I'll just throw in one more thing. It's not about fossil fuel subsidies, but there is an agreement under the TPP and also, remarkably, under the U.S.-Mexico-Canada agreement, to do away with fishing subsidies for fish stocks that are almost depleted. That's a good thing to look at as a model in terms of how to go about addressing subsidies. Maybe there is a process there that can be used to address the issue of fossil fuel subsidies as well more generally.

Thank you.

[*Translation*]

**Mr. John Drexhage:** The first challenge is the definition. It's always an issue.

[*English*]

We have to give you an idea of the range of what we're dealing with. On the one hand, you have the IEA, which has estimated that overall global subsidies are in the area of around \$450 billion and are all related to consumption. Iran pays way lower prices for their fuel than the global market. They don't really look at their production side at all.

On the other side and on the other extreme, you have the IMF, the International Monetary Fund, which takes into account the entire social cost of carbon. They estimate the subsidies to be \$4.5 trillion. The UNDP, OECD, IEA and all of these multilateral institutions are trying to get to some kind of common understanding of what “subsidy” actually covers—let alone “efficient” and “inefficient”. Finance Canada, to be absolutely frank, still has not been entirely transparent about how it addresses subsidies.

I'll leave it at that.

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

Mr. Amos, you're up next.

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

Thank you to our witnesses. This has been a bit of a tour de force, in a way. There's a lot on the table.

I've been thinking most about what you said, Mr. Turner, particularly having read the Walrus article you published a year ago. I would recommend it to our committee members. I think it's a really interesting take on how all Canadians are, in some way, shape or form, complicit in the issue of climate change. It's not a battle to be won. It's the kind of issue that is ripe for incremental politics but that nonetheless presents a massive challenge to us. In essence, what I took from that piece was that we're all in it together.

I would ask you to give us your reflections on the Conservative Party's take on pollution pricing. My views are well known. I spoke for 10 minutes in the House a couple of weeks ago during our emergency debate. I'm on the record as decrying the dumbing-down of this debate—a tax on carbon being a tax on jobs and everything else. I'd like to hear your views on what needs to change in the political discourse, particularly as regards the Conservative Party's treatment of that pollution pricing issue.

• (1625)

**Mr. Chris Turner:** Yes, I can speak to that.

Incidentally, the Walrus piece that I think you're referring to is actually an adaptation of the last chapter of my oil sands book, so you can find it there as well. I actually wrote recently in *The Globe and Mail* about various approaches. It wasn't specifically looking party by party, but just where we are going on climate policy and how far have we gotten.

Certainly, it was quite clear in that piece that, federally, the Conservative Party at present doesn't have a plan that I'm aware of. It has not yet been disclosed what their plan is going into the next election. Certainly, as a government, though, the Conservatives actually initially had some not bad stuff. If you could go back to the "Turning the Corner" plan that was brought forward, I think, in 2007

**Hon. Ed Fast:** By John Baird....

**Mr. Chris Turner:** Yes, it was John Baird's "Turning the Corner" plan. It was not bad. Certainly, it did have potential mechanisms for putting a price on carbon. It really did seem to want to address in a broad, thorough way what was going on. It was not terribly well-received outside of the party itself. Some of my colleagues have certainly argued and maybe unfairly criticized it simply because the rhetoric of the day was so heated around this stuff that there was just not a lot of ground being given, but that kind of fell by the wayside.

Then, as a government, the Conservatives spent most of their time using the phrase "job-killing carbon tax" every single time that the subject came up. I think it was an extraordinarily negative thing to do to the public discourse: to frame the essential response needed to climate change nationally as a thing that was trying to destroy the economy.

What we've found in the limited evidence that we have to date—British Columbia is the best—is that putting a price on carbon is not a drag on the economy in any way whatsoever. There's no real evidence of that. I think that a lot of the opposition now is basically looking for other ways to put prices on carbon without saying "tax" because they sort of recognized that putting a price on pollution is a smart thing to do, but that they can't say it anymore because they've spent 10 years talking about how it was the worst idea on earth. You hear that, certainly, from some of the premiers and would-be premiers now when they talk about it. I think that it's an enormous disservice to Canadians to be framing the debate in those terms.

I don't think that the Conservatives are entirely alone on this. I think governments of all stripes over the last 10 to 15 years have taken political positions that don't necessarily match up with where they claim to want to go. Everyone now kind of claims that climate change is a serious problem and that we have to do something about it. However, we're never willing to kind of say, "Hey, let's all agree

that there's a baseline"—and this is something that I talk about in that *Globe* piece—the same way we agree on the baseline that universal health care is a good thing, that it's good for Canadians to not have to pay for health care and to not go broke because they get sick.

Similarly, not having carbon pollution be free is a good thing. If we intend to do anything about climate, at some point it has to be punished. I think arguing about whether it's a tax or a price has really fed some very reactionary politics that have not helped the debate at all.

I'm not sure if I've answered the question thoroughly, but I think—

**Mr. William Amos:** That's a helpful indictment. I appreciate it, but I think it also opens up an avenue for potential for improvement. You cited the "Turning the Corner" plan, which has been in the rear-view mirror now as the decade has gone. What would you like to see the Conservative Party come forward with to engage more constructively in the debate beyond saying "job-killing tax" on everything?

**Hon. Ed Fast:** Mr. Chair, I have a point of order. The focus of this study is international leadership. We have three people who are well-informed on the issue and who, so far, have been providing information that is helpful to this committee.

The political nature of the questions that are being asked and the exclusive focus on one party, rather than dealing with international leadership and where that should take us, I don't believe is within the scope of the study that we're doing. I would ask you to rule on that and maybe consult with our experts.

• (1630)

**The Chair:** The comment that I'll offer is that we know that the MPs do have a fair bit of latitude, and with regard to this study, I've been pretty good about letting people explore whatever aspect of what they see as international leadership that they would like.

**Hon. Ed Fast:** This isn't international leadership. You know that, John.

**The Chair:** There are 30 seconds left, and I would say the Conservatives are up next.

You'll have six minutes to explore what you would like on international leadership.

**Hon. Ed Fast:** You'll see. You're setting the tone.

**The Chair:** I take your points. I don't know if Mr. Amos has anything further in his 30 seconds or if he would simply like to hear a response and then we'll move on to Mr. Lake, who is the next person.

I think there is perhaps something in your comments that we can all take. We want the questions and answers to be productive so we can end up with a good report that will hopefully guide us moving forward on international leadership. That's something I'll get all members to think about in their questions.

**Hon. Ed Fast:** Thank you.

**Mr. Chris Turner:** Do I still have the floor?

**The Chair:** We'll give you 20 seconds.

**Mr. Chris Turner:** One thing I would say on the subject of international leadership is that most—in fact, all, I think—of the international organizations have looked at this thing. IPCC, the UN, various...and, I believe, even the IEA has looked at it, and said that one of the best mechanisms, one of the essential mechanisms for the global response to climate change is going to be a price on carbon. There is pretty widespread, non-partisan agreement that it is a key instrument.

**The Chair:** Okay. Thanks for your comments.

Now we'll move to Mr. Lake.

**Hon. Mike Lake (Edmonton—Wetaskiwin, CPC):** I don't know what to say. I'm new to the committee. I find that to be an incredibly interesting line of questioning from a Liberal MP to a former Green Party candidate, basically asking for criticism of a Conservative Party position and then actually referencing it as a “helpful indictment” as he frames his conversation theoretically around how we move towards a more constructive debate.

It's astounding to me. I've given notice of the motion. I'll move it now, because I really do think that we could have a constructive debate about this. We have a study on Canada's international pan-Canadian framework. We have a study that is tackling the pan-Canadian framework, so far dealing with three aspects: the built environment, international leadership and, next, forestry, agriculture and waste. I have noted that in my short time on the committee, the vast majority of the witnesses have referenced carbon pricing or carbon tax as a key priority. In fact, the pillars of the framework are written into the framework itself. It says the pan-Canadian framework has four main pillars. Everywhere that it's mentioned, pricing carbon pollution is mentioned as the first of the four main pillars. It forms the core of the plan, and I think that if we're going to have a study of the pan-Canadian framework, it would be irresponsible of the committee not to study the carbon tax.

I have put forward the motion:

That, following the Committee's study of Clean Growth and Climate Change in Canada: forestry, agriculture and waste, the Committee proceed next to a study of Clean Growth and Climate Change in Canada: Carbon Tax, and that the study consist of no less than six meetings with witnesses.

That is the motion I put on notice a week ago. I'm hoping that it actually won't take too long, because I think that this, as the core pillar of the Liberals' pan-Canadian framework, would be something they would want to have a robust discussion about and invite witnesses who are experts on the topic to come before committee and discuss.

I agree with you on the point you make that Canadians want to have a good conversation about this issue, a respectful conversation about the issue. This will give us a chance to hear from the top witnesses, top experts, in the world on it, if we invite them. Perhaps at that point, it would be fantastic to have the minister herself come before the committee and talk about carbon pricing. Clearly right now, in Canada, there is a considerable conversation taking place around carbon pricing.

There have been elections during which the carbon tax has been the key electoral issue, and clearly the consensus that may have existed three years ago is not the same today. I think it's incumbent

on us as the environment committee studying the pan-Canadian framework to discuss that.

• (1635)

**The Chair:** We will have Mr. Bossio, Mr. Fast, and anybody else wanting to speak to the motion.

**Mr. Mike Bossio (Hastings—Lennox and Addington, Lib.):** We as a committee have agreed on what we would study next—forestry, agriculture and waste.

Mr. Lake, we had a number of other issues we said we would consider studying after that.

We had a timeline to discuss that and unfortunately he's decided that he wants to jump the queue on that discussion by bringing this forward now. I can't support jumping the queue on a study that we had already agreed to have or would have been happy to discuss this as a study down the road but since he wants to bring it forward now, I'll have to oppose.

**Hon. Ed Fast:** I'm very sorry to hear that from someone who claims to be very interested in the issue. I will remind everyone at this table that when the carbon tax was first announced, I was at a briefing where an Environment Canada official said very clearly in no uncertain terms that the carbon tax was the “foundational element” of their climate change plan—the foundational element. This wasn't some throwaway. It wasn't on the side. It wasn't a minor piece.

It's been repeated here by Mr. Turner that the carbon tax needs to be the major piece of every platform. If that's so, then we as the environment committee should at least have a close look at what a carbon tax entails. As some of you will know I've gone on quite a journey on the carbon tax. I've always been open to whether we should use a market-based mechanism to change behaviour in a way that ultimately doesn't punish Canadians broadly. It punishes, perhaps, or penalizes those who use more or who do things that emit more greenhouse gases but then return the money to taxpayers one way or another.

Which is why when the B.C. carbon tax was first introduced—Mr. Aldag, you're from B.C. so you will remember this—Gordon Campbell introduced this tax, and Gord is a friend of mine. This is not casting aspersions on him. He swore up and down that this was going to be a revenue-neutral tax that was going to discourage behaviour but be returned to the taxpayer. For the most part, with a few exceptions, that's what happened with the B.C. carbon tax.

Today that carbon tax is at \$35 a tonne. I've yet to meet an economist who will agree that \$35 a tonne or \$50 a tonne or even \$100 a tonne is significant enough to change human behaviour. Be that as it may, you have this tax in B.C. so it's now at \$35. That's done. Greenhouse gases in B.C. are still going up. Some will say that's because the economy is growing. The Paris Agreement targets are absolute targets. There is no adjustment for economic growth. Those are your targets. You have to meet them.

If that's the reference point, we're failing in British Columbia to reduce emissions. What did the new government, the NDP government do? They removed revenue neutrality so now it becomes a cash cow for governments to spend on their own political priorities. Why wouldn't you want to study that? If there's a carbon tax that can be defended, that can be promoted to Canadians as being defensible and workable and effective, then let's do that at this table, not walk away from the issue. That's what it appears my Liberal friends are doing.

Let's have a fulsome discussion about this. That's all we're asking. This is the foundational element of the pan-Canadian framework on climate change that the Liberal government tabled and promised was going to lead us to climate change nirvana, that we were going to meet those Paris targets. Today it's very clear that we're not even on track to meet those targets.

That's my case. Let's support this. Let's do something and we will be constructive participants in that effort. We're not here to bash the carbon tax. I remain to be convinced, but I'm going to be a constructive participant and Mr. Lake will and Mr. Godin will and everybody else who comes to the table.

• (1640)

**The Chair:** I'll simply say that's not what I heard Mr. Bossio say, but he is on the list, so I'll let him speak to what he said when it gets back to him.

Next up is Ms. Dzerowicz.

**Ms. Julie Dzerowicz:** Thank you, Mr. Chair.

I believe the topic of what our next study would be came up at our subcommittee meeting. From my recollection—

**Hon. Mike Lake:** On a point of order, I believe that committee meeting was in camera.

**The Chair:** Yes, it was.

**Ms. Julie Dzerowicz:** Can't I mention it?

**The Chair:** No, not—

**Hon. Mike Lake:** I have a point of order. That's part of the problem, private conversations versus what we discuss in public.

**The Chair:** You can talk about the report that we brought from the subcommittee back to this committee, but not about the discussions behind what came back from subcommittee.

**Ms. Julie Dzerowicz:** Oh, my goodness. Well, I don't know.

My point was basically what we said, and I think it's fairly general. To be safe, I don't think I should mention it, because I don't know if I can or not.

**The Chair:** The clerk is informing me that the only part that can be shared in public is what became public, which is the adoption of the report. I'm just trying to see if we have that...

**Hon. Mike Lake:** In the report, there was no mention of the carbon tax.

**Ms. Julie Dzerowicz:** That's because we believe we're putting a price on pollution.

**The Chair:** I just need to find what the wording is in the report.

The report that was adopted did not mention the future studies under consideration beyond the next one, which is about forestry, agriculture and waste.

**Ms. Julie Dzerowicz:** Right, and I was going to mention that, but let me just say very simply, because I have to be on the safe side, that I think we came up with a game plan on how to come up with the next study. I propose that we follow the game plan that we agreed to at our subcommittee meeting, because I think that includes the consideration of this motion.

That's it, Mr. Chair. I hope I didn't violate any deep privacy principles there.

**The Chair:** Mr. Godin, you're next.

[*Translation*]

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

To build on what my colleagues Mr. Fast and Mr. Lake were saying, we must rise above partisanship and try to advance the cause that affects us all.

Mr. Lake's motion states as follows: “That, following the Committee's study of Clean Growth and Climate Change in Canada: forestry, agriculture and waste, the Committee proceed next to a study of Clean Growth and Climate Change in Canada: Carbon Tax...”

I think the issue is very sensitive. Before making a decision, a good parliamentarian must have as much information as possible. I believe that this study will give us the tools to ensure that we make the best possible decision for the environment. In my view, this should be our main mission. We must rise above partisanship.

My colleague Mike Bossio said earlier that he would have been open to the motion but that, since the motion was tabled today, he wouldn't commit to it. Would my colleague be more open and would he support the idea of the study if other dates were scheduled?

• (1645)

[*English*]

**The Chair:** Mr. Choquette.

[*Translation*]

**Mr. François Choquette:** I suggest that you defer the question to another time so that we can continue to hear from the witnesses. Otherwise, we could proceed immediately with the vote.

As an observation, I would say that the words carbon tax refer only to the tax on carbon. In Canada, we also have the cap-and-trade system, which is commonly known as the “carbon exchange.” Maybe the term carbon pricing, to reflect the notion of the price on carbon, would be a better choice of terminology than carbon tax.

[*English*]

**The Chair:** I have one more person on my speakers list.

Mr. Lake.

**Hon. Mike Lake:** To Mr. Bossio's and Ms. Dzerowicz's comments, I do want to point out for folks who would listen to this that the subcommittees and committees are set up in such a way that the majority of the members on the subcommittee are Liberal members of Parliament. With that majority, they can dictate what is or is not in a report in the private, in camera subcommittee meetings. As you're analyzing the words put forward by Liberal members of the party, I think it's important to note that.

I think it is important that we're having this conversation in public. The carbon tax is the central pillar. No Liberal member of Parliament, and that includes the environment minister and the Prime Minister, would deny that the carbon tax is.... They might use different language, but whatever language we use— carbon tax, carbon pricing—it is the central pillar of the framework.

We are the environment committee of the House of Commons. If we're going to have a responsible conversation about Canada's environmental policy moving forward, it seems to me that the reasonable place to have that conversation is in a study on the pan-Canadian framework. This is the overarching study that we're doing right now.

In the study we're doing, if we're going to study something called “international leadership”—basically if the Liberal majority has decided we're going to study Liberal leadership on the environment at the international level—and if the committee has decided we're going to study forestry, agriculture and waste as a sub-study for six meetings, certainly the carbon tax would warrant a six-meeting study as well.

I am putting forward in public a vote by the committee on the question of whether, as members of this committee, we think Canadians would be interested—as they spend the next year contemplating environmental policy as part of an election campaign—in a conversation among parliamentarians from all parties and expert witnesses from across the country and around the world on carbon tax or carbon pricing or whatever it is we want to call it.

**Hon. Ed Fast:** Well said.

**The Chair:** Thank you. I have nobody else on my speakers list.

No. I do have another one. Mr. Choquette.

[Translation]

**Mr. François Choquette:** I just want to clarify one point. If the words carbon pricing are used, I'll vote in favour of this amendment.

[English]

**Hon. Mike Lake:** Pardon?

[Translation]

**Mr. François Choquette:** If we replace the words carbon tax,

[English]

if we just change “carbon tax” for “carbon pricing”, I will vote in favour.

**Hon. Mike Lake:** We'll accept that.

Actually, I think we have to vote on that amendment.

**The Chair:** Okay, so we have an amendment.

This is on the amendment put forward by Mr. Choquette to change the wording of the motion.

**Hon. Mike Lake:** Could we get a recorded vote, please?

(Amendment negatived: nays 5; yeas 4)

• (1650)

**The Chair:** The amended wording is defeated and now we'll move to the vote on the original motion.

**Hon. Mike Lake:** Could I have a recorded vote, please?

(Motion negatived: nays 5; yeas 4)

**The Chair:** Okay, that motion is defeated. Now, while we have our witnesses here, Mr. Lake is out of time.

We'll move back to Mr. Bossio for his—

**Hon. Mike Lake:** I have a point of order.

Did the motion count against my time? I just want to make sure that we're clear on that.

It does. Okay.

**The Chair:** Yes. That's how we've done it with other points of order that have come forward.

**Hon. Mike Lake:** That's fair.

**The Chair:** Mr. Bossio.

**Mr. Mike Bossio:** Thank you all for your patience. Thank you so much for being here today and providing the testimony. It has been great testimony.

In discussing the ITMOs side of things, I know that on the other side, my colleague, Mr. Fast, had spoken about the international transfer of technology and skills, etc. Would that be enough to actually get us to our emission targets—to our commitments under the Paris Agreement?

**Mr. John Drexhage:** No.

Like I said in my intervention, it's not one or the other. It's “and”. The two are absolutely critical. I think the discussion is framed too much in an either-or context. That's what I'm objecting to.

**Mr. Mike Bossio:** Mr. Turner, are there examples around the world where a price on pollution is actually lowering emissions?

**Mr. Chris Turner:** I'm trying to think of the most recent numbers. Various prices on pollution have led to decreases in fuel use across the board. Sometimes there are other emissions coming from those countries for other reasons that wind up pushing up or negating some of the progress that carbon prices do. That's been the experience in British Columbia, for example, where emissions were actually on a downward trajectory, and then, partially because the price got frozen for a couple of years, emissions went flat.

Most of the experts I've ever spoken to about this would say it does not work by itself. It needs to be embedded in a larger climate policy package that further increases the opportunities to use other fuel sources and that increases investment in renewable energy technology and emissions technology and that sort of thing. The hope is that it makes all of those things work more efficiently.

**Mr. Mike Bossio:** It's been quoted many times that we would need a price of \$1,300 a tonne in order to really effectively deal with this. Under our pan-Canadian framework or under our climate measures, there are 50 different measures that we're actually bringing forward to reduce our emissions targets. Would you not agree that this is a responsible approach and that we need to use every tool at our disposal to try to lower those emissions?

• (1655)

**Mr. Chris Turner:** Absolutely, yes.

The thing with carbon prices that makes them a fairly effective policy instrument is that you can change them around. If they're not working, you can increase them or you can decrease them. If you're going to do something like invest billions of dollars in carbon sequestration technology, making that stuff more attractive by putting a price on carbon is an obvious complementary policy.

**Mr. Mike Bossio:** Have not most economists out there agreed that a price on pollution is the most cost-effective and efficient way to reduce emissions?

**Mr. Chris Turner:** Yes.

**Mr. Mike Bossio:** Sorry, I don't know if Mr. Drexhage and Silvia would also like to comment. I apologize.

**Mr. Chris Turner:** They'd be welcome to.

Certainly a great many economists—I don't know if it's a majority or not because I don't know how they number themselves—who've looked at this have concluded that it is one of the most low cost to implement and most efficient in sending price signals to encourage the decrease in use of fossil fuels.

**Mr. John Drexhage:** The point I would like to make is the one you made just previously.

I think it's just so simplistic to talk about a carbon price versus regulations. It's the entire menu. There is not one country out there that has simply put in a pure carbon price without other measures. Every measure carries its own carbon cost and carbon price. The entire panoply needs to be understood in that context. It's not saying this one instrument is better than that one instrument. It's the context of the countries. It's the political conditions. It's the social conditions. It's all kinds of different factors. It's not simply an issue of price versus regs, or tax versus price, or what have you.

**Mr. Mike Bossio:** It's all of them.

**Mr. John Drexhage:** It really is all of them. I think we need to have a much more nuanced and mature discussion around that, frankly, in this country.

**Mr. Mike Bossio:** Silvia.

**Ms. Silvia Maciunas:** I would just add one thing.

If you look at the Paris Agreement, article 6 deals with ITMOs. That's one article. There is an expectation, I think, that every country will put in its suite of activities and its nationally determined contribution, and that those will be varied and include regulatory provisions governing different aspects of how emissions are generated in those various countries. In that sense, I think you have to look at both areas.

Frankly, for pricing, I'm not an economist. I'm a lawyer, so I understand the regulations better.

**Mr. Mike Bossio:** Silvia, you also talked about the subsidies on green technology. There are many different examples that are effective and are being utilized by different countries around the world. Can you give us some examples of what would be the most efficient and effective subsidy mechanisms that could be used to increase the use of green technology?

**Ms. Silvia Maciunas:** Coming back to the point that I'm a lawyer and not an economist, I'm not sure that I can give you examples of the most effective ones. I can give you some guidelines on some of the things that you shouldn't do when you're designing a subsidy.

One of those is not to add local content requirements onto it. If you add a requirement that we have to use domestic equipment or hire domestic employees, that is likely to bring a challenge on that particular subsidy. It would be very difficult, without a revision in the subsidies agreement, to include local content requirement—

**The Chair:** I'm sorry to cut you off there.

Mr. Lake, we'll go to you.

**Hon. Mike Lake:** A couple of meetings ago, we had the Pembina Institute and Greenpeace here. We asked if we are on track to meet our Paris Agreement targets. Right now, as it stands, is Canada on track to meet its Paris Agreement targets? The Pembina Institute talked about a 66-megatonne gap and Greenpeace said that the gap is actually larger than that right now.

I'd like each of you to weigh in on that, and then Joël is going to take the rest of the time.

**Ms. Silvia Maciunas:** I would indicate that my expertise is not in that. I've been reading the media and looking at the charts as well. It doesn't look like we're on track, but our commitment under the Paris Agreement is for 2030. A lot can happen in 12 years. I would not be ready to say that we're not going to meet those targets.

**Hon. Mike Lake:** That's one of the reasons why I phrased it as “are we on track to meet the targets?”, not whether or not will we meet them. Right now, are we on track?

**Ms. Silvia Maciunas:** I think it depends on when the impacts of some of those regulations kick in. I'm not sure we can totally predict that at this time.

**Hon. Mike Lake:** I would like to hear from each of you.

**Mr. Chris Turner:** My understanding is that we're definitely not on track. If this is the status quo from now until 2030, we miss the target. We would join I think virtually every other signatory to the Paris Agreement in that.

I think that gets to the complexity of the problem and the fact that the kinds of steps we would need to take to be on track today are simply not ready to go politically—and sometimes technologically—but we also don't get any closer to those targets unless we start moving as fast we can right now. I think that's the thing to keep.... The fact that we are not on target is not a reason to not continue to push in that direction.

• (1700)

**Mr. John Drexhage:** My only comment would be that it's sort of difficult to determine what part of the plan you want to include in making that estimation of being “on track”.

Let me give you the example of what Chris was referring to. Where we have a huge advantage is our electricity grid. Again, it was under our previous environment minister.... I'm sorry, but his names escapes me. He had an unfortunate airplane accident.

**Hon. Ed Fast:** Was it Jim Prentice?

**Mr. John Drexhage:** Yes, it was Jim Prentice. He was the first one to actually pose the challenge of 90% renewable by 2030. That's a bipartisan, bi-party commitment. The current environment minister has made the same commitment. If we show a recommitment towards that, to the electricity grid of 90%, I think we'll be making a very strong indication that we're getting ourselves more on track than we ever have in the past.

[Translation]

**Mr. Joël Godin:** I'll take over from here.

I want to thank you for being here and for your patience and understanding.

As I said earlier regarding the motion, I'm here to make a difference for the environment and for Canadians. According to the information that I have on hand, Canada's Ecofiscal Commission estimates that approximately 5% of the Canadian economy would be exposed to competitive pressures if the price were \$30 to \$60 per tonne of carbon equivalent. This constitutes a loss of about 7%. This is called carbon leakage.

I made a rule of three. At \$30, we would lose 5%, and at \$60, we would lose 7%. At \$100, we would lose 11.66%, and at \$200, we would lose about 25%. Lastly, at \$350, we would lose over 40%. Experts say that an effective carbon tax must be very high, in other words, between \$300 and \$350. We're currently implementing mechanisms to control climate change and reduce greenhouse gas emissions. However, don't we risk losing up to 40% of our investors and businesses? I'm convinced that there are other ways, and I've heard you say the same thing in your comments.

Is my view realistic? My question is for you three.

[English]

**Mr. John Drexhage:** I'll take it first.

Yes, you're giving a reasonable explanation. Those are typically the costs and prices that are bandied about. I guess what I'd hasten to add is that you have to start somewhere. By beginning to put in a price and designing it correctly, hopefully things can get ramped up and it will give enough of the signals.

Part of our problem is that we want to solve everything right from the get-go, before actually taking some meaningful first steps to begin to get us on our way.

You mentioned before how Germany had looked at it for 30 years. I was actually the pen—I was a civil servant at the time—of Canada's first national action program in 1994. The fact is that we have not really come a heck of a lot further in terms of actual implementation since then. I would just like to really see some constructive first steps to take us on our way, instead of trying to provide an overall, comprehensive solution right off the bat in order to make anything happen.

Thank you.

**The Chair:** We're going to jump over to Mr. Peschisolido. We should get our last two in.

**Mr. Joe Peschisolido (Steveston—Richmond East, Lib.):** That would be nice.

Thank you, Mr. Chair. Thank you to our guests.

Mr. Turner, I haven't read your books yet, but I look forward to them. However, I was re-reading *The Ecology of Commerce* by Paul Hawken, which I first read about 12 years ago. What struck me is that he talked about both the ecology of commerce but also the commerce of ecology, and the whole notion that you have to develop a system that is environmentally friendly but also plays into the desires and the needs of people. You have to tie in capitalism to an environmental movement, basically transitioning from one to the other and using the mechanisms in capitalism for an environmentalism.

Can you comment a bit on that? Taking Mr. Fast's approach in terms of focusing on the topic at hand—international leadership—can you comment on how Canada as a country has dealt with those things, combining the market and environmental stewardship?

Mr. Drexhage and Ms. Maciunas could comment as well.

• (1705)

**Mr. Chris Turner:** Given that the topic at hand is the pan-Canadian framework, one of the things I think is encouraging about it is that in addition to the price on carbon we've been discussing, it has all of these measures that are intended to do things like free up and encourage capital to flow towards businesses that are innovating in this sector. That's not just someone coming up with some wild new storage solution or an electric car or something like that. It's also through oil sands companies that need to cut their emissions anyway, which they are actively and strongly pursuing as we speak, that those technologies will have an opportunity to develop and reach international markets.



Some of the really good first steps are there. As I said in my opening comments, it is my understanding, from people who are much more well-informed than me on this, that where Canada tends to not do well on that kind of technology development is in getting.... You saw this with the dot-com boom and the information technology boom before it. We come up with amazing ideas and they get capitalized and turned into huge companies elsewhere. I think some of the stuff—certainly, for example, that my colleagues at the Smart Prosperity Institute talk about a lot—is the kind of mechanisms alongside the pan-Canadian framework and some of the stuff in it that could be brought in that would help to get these Canadian companies.

One that I know of, basically out of a personal connection, is a company called CarbonCure out of Halifax. What they do is reinject CO2 back into the concrete production process. They just got a pile of money from Bill Gates' venture capital firm. They've gotten some money from the federal government. This is exactly the kind of company—I don't want to go down the road of picking winners and losers—that the pan-Canadian framework is trying to make a globally competitive company in a whole new marketplace that barely exists yet. I would say that's the piece of it that we're still figuring out.

**Mr. Joe Peschisolido:** Mr. Turner, thank you.

Do you have anything to add?

**Ms. Silvia Maciunas:** I would come back quickly to the topic I was discussing earlier, which is that when we're looking at solutions for climate change we also have to look at the international rules that govern what we do. If we're talking about international leadership, there are other areas we can also get engaged in internationally. I think we have to a certain extent, like in reducing HFCs under the Montreal protocol, like working with the people who are doing short-lived climate pollutants. I think people have estimated there's half a degree to be saved if we could get some sort of agreement there that would work.

I think we have to look broadly at the kinds of things we could do that are consistent with the kinds of approaches we take as Canada.

**Mr. John Drexhage:** I just wanted to offer a personal observation.

What I'm doing with the World Bank is actually looking at scenarios for the low-carbon global future and what it will mean for the minerals and metals commodities markets. Nobody has stopped to think what wind turbines and solar energy storage batteries and all these electricity systems are actually made out of. There are very significant opportunities in the commodities market in copper, in zinc, in silver, in nickel, in rare earth, where these things are going to explode in demand over the next 10 to 15 years.

There is another perfect niche for the Canadian economy preparing itself to supply those technologies. That's just to give you an example.

**Mr. Joe Peschisolido:** Mr. Turner, you mentioned briefly electric cars. About a year or so ago I made an announcement for a company on Annacis Island, in Richmond that has a prototype for a charging station for electrical buses. I think that's the type of thing we have to push forward in order to transition from our economy today into a new, more sustainable economy.

Are there other policy initiatives like this that look at a systemic change to how we function in our economy?

• (1710)

**Mr. Chris Turner:** I would defer to my much more experienced colleagues. Smart Prosperity Institute in particular has issued piles of reports looking specifically at the strengths of the Canadian economy and how they fit with what we believe to be some key components of this emerging global clean-tech economy, and how to pair those up.

It is finding that it may not be manufacturing Teslas. It maybe building components for charging stations. There's a B.C. company that's building the batteries for electric ferries, for example. They signed a huge contract with Norway recently.

I think some of that work has been done. It's not my specific area of expertise.

**The Chair:** You're out of time.

Our final questions go to Mr. Choquette, who has three minutes. That should take us right to the bells.

**Mr. François Choquette:** Three minutes, I don't have a lot of time but I just want to come back

[*Translation*]

to trade agreements. As you said at the beginning of the presentation, these agreements often include environmental side agreements. According to some criticisms, this wouldn't carry the same weight as it would if the environmental provisions were included in the agreements.

What do you think about this? Do you have any comments regarding the environmental side agreements?

[*English*]

**Ms. Silvia Maciunas:** I think it's more the content that matters rather than where they're placed. As a matter of fact, when the agreements were brought into the trade agreements, the scope of the obligations was narrowed. When they were inside agreements, there was an obligation to seek to have high standards generally, but when you bring it into the trade agreements, you're talking about a failure not to enforce your environmental laws and so on as they affect trade. In fact, it's put in a trade perspective and is less broad than it would have been otherwise.

The thing about the agreements of the environmental provisions, which are found in chapters now, is that they are getting broader and more substantive. I think the more important question is whether we need dispute resolution on them to make parties take them more seriously. That's where I would see future work on the environmental chapters. Plus, we could have innovative provisions added that deal with co-operation on clean tech and that deal with increasing trade in environmental goods and services. There's more work that could be done there, and I think it would be worthwhile, although I think where it matters less.

[*Translation*]

**Mr. François Choquette:** I also want to ask you a question about Canada's commitment to international aid for the fight against climate change. At this time, its commitment up to 2020 stands at approximately \$2.65 billion. A number of experts state that this contribution should be proportional to the GDP and should be close to \$4 billion.

What are your comments on the matter? Mr. Drexhage, do you want to answer the question?

[*English*]

**Mr. John Drexhage:** I believe you're referring to the deal that developed countries reached in providing developing countries.... I would say that, as is the case overall—and I'm just making a personal reflection here—I think it's made it more difficult for the Prime Minister to make the case for Canada to be represented on the Security Council, because their competitor is Norway.

Norway's ODA percentage on climate and overall development aid is 3.5%. It's astonishing. Ours is under 1%, and that is a real credibility gap. While Canada has made its contributions and has followed up and implemented those, I think there's room for a lot more to be provided, no question about that.

**The Chair:** All right. We're out of time. That takes us through the full round of questions.

I'd like to thank our witnesses today. You've seen some interesting dialogue and procedural things that we don't always get to. Thank you for your patience as we worked through all of that.

Given that we're expecting the bells any moment, instead of dealing with anything else, we'll adjourn and head back to the House. On Thursday we currently have three witnesses confirmed and we are hoping for a fourth. I'm looking forward to some more good discussion on international leadership on Thursday.

Thanks, everybody. This meeting is adjourned.

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