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## Tuesday, October 23, 2018

## Chair

**Mr. John Aldag**

# Standing Committee on Environment and Sustainable Development

**Tuesday, October 23, 2018**

● (1535)

[*English*]

**The Chair (Mr. John Aldag (Cloverdale—Langley City, Lib.)):** Good afternoon, everybody. Welcome to our third panel on international leadership relating to the pan-Canadian framework on climate change.

Welcome to our witnesses, those in person and on video today.

Also, welcome to some visitors, our guests today, including Alexandra and Garnett.

Ed, it's wonderful to see you back, and I look forward to seeing you back at our table on an ongoing basis.

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

**The Chair:** We're going to get right into our testimony. We tend to go with our online guests first so that, if technology acts up, we have a bit of time to get them back.

Each witness will have 10 minutes to present. I'll give a one-minute signal with the yellow card when you're nine minutes into your presentation. When I give you the red card, just kind of wrap it up. You don't have to stop immediately, but wind it up, and then we'll get into questions and answers.

For anybody who is new to the committee, we go through a rotation, with each side getting about six minutes. We rotate around, and we'll go for a full round. I can't remember exactly how long it is, but we'll see where we stand after everybody gets their allotted questions.

With that, let's start with Keith Stewart from Greenpeace Canada.

Mr. Stewart, you have 10 minutes.

[*Translation*]

**Mr. Keith Stewart (Senior Energy Strategist, Greenpeace Canada):** Thank you, Mr. Chair.

[*English*]

Thank you so much for having me here today.

My name is Keith Stewart, and I'm a senior energy strategist with Greenpeace Canada. I've previously worked with World Wildlife Fund, the Toronto Environmental Alliance and some other environmental groups. I am also a part-time instructor at the University of Toronto, where I teach a course on Canadian energy and environmental policy.

I wanted to directly address the questions that the committee put forward, with regard to the three areas, and then add one more area, where I think Canada really could show some interesting international leadership.

First, with respect to climate finance, Greenpeace Canada is part of, and supports the recommendations of, the Green Budget Coalition. If you haven't seen them, they will definitely soon be appearing in all of your inboxes in English and French.

We have very detailed recommendations there, but these are the highlights.

Under the Paris Agreement, the industrialized countries agree to mobilize $100 billion a year in the 2020 to 2025 period for climate finance. A fair share of that has been calculated to be about $4 billion for Canada. Currently, we've committed $800 million for 2020. We see a gap there. We'd like to see Canada doing more.

The Green Budget Coalition proposes innovative sources of financing for this. In particular, a levy on bunker fuels for international shipping or international aviation would be one way to raise this money, as could a financial transaction tax. There's a variety of ways to do it. It could help Canada deliver on that commitment.

We would also add that the details of finance are really important, as always. The funding needs to be new and additional, not just redirecting existing aid funding by sort of renaming it without increasing the overall size of that pie.

We think there needs to be a balance between adaptation and mitigation: money being spent to reduce greenhouse gas emissions versus money helping poor countries adapt to those changes, which can't be avoided at this point. It should be in the form of grants, not loans.

The second is with respect to internationally transferred mitigation outcomes, which is basically buying greenhouse gas reduction credits for other countries. This originally came out within the international system around the Kyoto Protocol in 1997, when some countries had emissions reduction obligations and some did not. You had annex I and annex II countries.

We now have every country in the world undertaking emissions reduction obligations. Much of the intellectual argument in favour of offset systems, where you're funding stuff that wouldn't have happened otherwise, I think a lot of that no longer exists or is not particularly compelling. Every country in the world has basically agreed that they have these commitments to reduce.

There's a moral and reputational risk involved in these types of credits. It's very difficult to ascertain that these ITMOs are real and additional, and that these are reductions that wouldn't have happened in the absence of this money being found. That has been one of the major criticisms. There have been a few cases of some scams that have been run. Even though those are a tiny percentage of the overall system, it can actually throw the entire thing into disrepute. I think we all know that these things sometimes get blown up.

When it comes to meeting our international obligations, meeting the Paris targets, we should aim to achieve all of the reductions we have committed to, in terms of the 30% now and any additional amount that we commit to under the ratcheting up principle. Existing commitments by national governments are not sufficient to achieve the objectives of limiting global warming under the Paris Agreement.

We should try to achieve all of the reductions that we commit to under our nationally determined commitment in Canada. Internationally traded credits should be really viewed as icing on the cake, going further to help things go faster.

With the exception of the WCI system, because that's in existence right now, Quebec is still a part of that market. I'm encouraging the Ontario government to rejoin that system, but I don't think I'll be successful. I think the credits are fairly well monitored and well policed. Given that we've already entered into agreements there, I'm not necessarily saying that we should back out of that, but I don't see ITMOs as a primary plank of climate policy going forward.

Third, on trade and climate policy, Greenpeace, along with many other environmental groups, has put forward eight full planks in terms of what would make for a good trade agreement from the perspective of the environment. I can share that with the committee. The basic test for any trade agreement should be, does it support, and not undermine, a more stable climate? Does it contribute to clean air and water and to healthy communities? Does it respect the rights obligations to indigenous peoples and to reconciliation, etc.? Does it create good jobs?

When you look at the USMCA—or whatever we're calling it, NAFTA 2.0—there is a positive element there, which is the elimination of the chapter 11 investor-state dispute system. It has been used to attack or challenge environmental regulations in Canada on numerous bases, arguing that companies should get compensation for lost profits, which has had a chilling effect on broader environmental policy. If you're worried that it's not going to pass this test, you won't do it. The fact that it is no longer in the agreement is actually a good thing.

On the counter side, I think the environmental chapter is in the category of “It would be nice if these things happened” and not “These things must happen.” For trade agreements, I think that we need to actually have climate change put front and centre and actually have enforcement teeth that are as strong on the environment side as they are on the trade and corporate protection side.

Overall, those are the kinds of things that we aim for.

One of the questions from the committee was, how do we minimize carbon leakage? I would say that the path forward there should be to simply apply carbon tariffs at the border that are equivalent to a carbon price charged in the domestic market, so that no one can gain an advantage by relocating manufacturing to an area or a jurisdiction without strong climate protection and then exporting into the Canadian market where we do have that. A carbon tariff would be a way to solve that problem.

In terms of the way the government can encourage pension funds and other institutional investors to play a greater role in supporting green finance initiatives, here I point to the work of Mark Carney and Michael Bloomberg. I don't think it's particularly common for Greenpeace to side with the titans of finance, but when you look at the work of the task force on climate-related financial disclosures.... The recommendations the task force put forward were proposed as voluntary measures, because that's the mandate they were given. If Canada were to make those mandatory—and we've had extensive discussions in Ontario with security regulators here—it would actually go a long way toward achieving your objective there.

Having greater disclosure of climate risk and opportunities, and making that mandatory, would also include requiring companies to disclose whether their business strategy is aligned with achieving the Paris Agreement climate targets. If not, what would they have to do to bring it into alignment? Is what you're doing consistent with a safe climate future? If not, what would you have to do differently? You have to tell your investors that, so they have that information and they know whether or not you're at a risk of stranded assets. It's these types of measures.

Now I'll turn to something that wasn't on your agenda, but I think it could be. There's an opportunity for leadership for Canada in terms of acting to restrict the supply of fossil fuels. Canada is one of the largest exporters of fossil fuels in the world. You can look to countries like New Zealand, which has said that it is going to prohibit new exploration for oil and gas and new expansion. We need to stop expanding fossil fuel infrastructure and start investing all of that money in those alternatives. We know that we won't phase out fossil fuels tomorrow, but we need to stop building new stuff today and develop a plan for a just transition off fossil fuels.

● (1540)

Thank you so much for your time. I'd be happy to answer any questions you may have.

● (1545)

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

Let's move now to Isabelle Turcotte from the Pembina Institute.

You have 10 minutes.

[*Translation*]

**Ms. Isabelle Turcotte (Director, Federal Policy, Pembina Institute):** I thank the committee for this invitation to appear as a witness.

My name is Isabelle Turcotte, and I am the director of the federal policy program at Pembina Institute.

[*English*]

We really thank you for the opportunity to share our views on the important role Canada can play to provide leadership internationally on climate action. I'll first comment on how we're progressing on implementing our pan-Canadian plan on climate change. Then I'll make a few comments on how we can sustain progress and where we can increase ambition.

Canada's credibility on climate on the international stage really rests on its ability to successfully implement the PCF, the climate action plan, or the measures to achieve our 2030 target under Paris, and further, to extend this ambition in line with international expectations. Canada successfully completed the first vital step in implementing the PCF in April, and became a global leader with the world's first comprehensive national methane regulations. That's wonderful news. This work, however, is not finished. The government must now work with provinces that will likely seek equivalency agreements—that's B.C., Alberta and Saskatchewan—to make sure that the federal regulations are not undermined by weak equivalency agreements.

A second critical piece of the PCF is the commitment to phasing out coal by 2030. Final regulations are expected before the end of the year. Similar to what I mentioned for the methane regulations, it will be really important that we get ambitious mitigation outcomes, as intended by the federal regulations, if we are to get equivalency agreements with New Brunswick, Nova Scotia and Saskatchewan, which are very likely to request those agreements. Not succeeding in meeting that target of completely phasing out coal by 2030 would really impact Canada's credibility in the Powering Past Coal Alliance, of which we are a founding member. I'll touch on this a little later on.

Importantly, the coal regulations alone are not enough to ensure that we meet our target of reaching 90% non-emitting generation by 2030. We need additional measures to ensure that a significant portion of the coal we're taking out is actually replaced by renewables, storage, efficiency and demand-side management instead of natural gas. A clean grid is really an essential enabler to then move on to deep decarbonization in other sectors.

As part of the comprehensive plan to tackle climate change, the federal government is also making sure that polluters are held accountable across the country by applying a price on carbon. Today is a great day for Canada, as we've heard, with the earlier announcement on the application of the backstop and the use of revenues. I think this is cause for celebration.

This measure will cut carbon pollution by 50 million to 60 million tonnes by 2022. To put this into perspective, to meet our target under Paris, we need to cut emissions by 215 million tonnes. We really can't do it without carbon pricing. We applaud today's announcement on the backstop application. From there, we really look forward to seeing the level of ambition increase, with the standards under the output-based pricing system becoming more stringent and the price increasing beyond 2022.

Among other measures to reduce emissions from transportation, the PCF is also committing to updating vehicle emissions standards and putting more zero-emissions vehicles on the road. We now have a really important moment before us on vehicle regulations. Our regulations have historically been in lockstep with the U.S. Following the recent U.S. decision to block the increase of the fuel economy standard at the 2021 level, we have to move really quickly to make sure that we are on course and that we hold strong on existing regulations.

Across the world, as jurisdictions successfully clean up their electricity sources, they're also rapidly moving to electrify downstream sectors like transportation. Canada signed on to the EV30@30 campaign at the Global Climate Action Summit, which means we now have a target for at least 30% of new vehicle sales to be electric by 2030. This is great news. Moving forward, we really look forward to seeing the Canadian government back this up with meaningful action to accelerate EV uptake.

● (1550)

Canada could consider joining the transport decarbonisation alliance, which unites leading cities, countries and companies to transform the global transport sector to a net-zero-emission mobility system before 2050.

International leadership on transportation should not be limited to passenger vehicles. Canada took another step in implementing the PCF by announcing updated standards for heavy-duty vehicles. Now is really the time to help the trucking industry implement the technologies that will help it meet these standards. Canada can learn by joining initiatives like the global Drive to Zero pledge. Its members are working together to coordinate activities and share strategies and best practices to build and support actions to drive the uptake of these technologies and build the associated markets.

To summarize this quick PCF implementation review, we can say that Canada has made progress, but the work is not over. Significantly, efforts have to be made to continue to translate the PCF commitments into policies and regulatory mechanisms, and to then implement these policies to get reductions on the ground.

Let's now consider the need for increasing ambition to align with international expectations. The full suite of the policies under the PCF still leaves us with a 66-megatonne gap towards meeting our target under Paris. Consequently, Canada has to seize every opportunity to really extend and strengthen the PCF policies. I gave a few examples of how to do this. We also have to find additional ways to reduce emissions. The Climate Institute will play a crucial role in providing forward-looking and credible advice on how we can do this, in addition to tracking our progress, and the Canadian government should definitely ensure that the institute is fully equipped to play this role.

To fulfill or exceed domestic efforts to curb emissions, as Keith mentioned, article 6 of the Paris Agreement provides for the acquisition of ITMOs. While we recognize the important role that ITMOs can play to stimulate a new round of innovation and co-operative approaches, we also have some concerns with the use of ITMOs. We encourage the federal government to continue to engage in the development of the rules on ITMOs to ensure that the following principles are respected: ITMOs should safeguard the environmental integrity of reductions; double counting should not occur; ITMOs should be voluntary and authorized by parties; ITMOs should support NDC implementation in both countries; and, most importantly, as Keith mentioned, ITMOs should support ambition, and so they should support going beyond each country's target.

Importantly, the federal government should develop its own national ITMO regime, with a mechanism to ensure that the principles l listed are respected, by establishing clear rules on domestic ITMO use, including what types of credits are acceptable, standards on MRV, and limitations on use.

In addition to strengthening and fully implementing the PCF and developing an ITMO strategy, as I've just mentioned, Canada must commit to setting a more ambitious target for 2030 by 2020. Indeed, at COP24 in December, Canada, along with all other parties, will be expected to signal that it will strengthen its commitment. This new target must be consistent with the IPCC 1.5°C report, meaning that to limit temperature rise to 1.5°C, global emissions must be reduced by 45% from 2010 levels by 2030, reaching net zero around 2050.

Canada does have a mid-century strategy. We also joined the carbon neutrality coalition. As a member, Canada must now commit to publishing a detailed plan on how it will get to carbon neutrality by 2050.

There's a really important opportunity for Canada to continue to play a leading role internationally, and it's through the Powering Past Coal Alliance. I'll just quickly wrap up by saying that we look forward to seeing the PPCA take more substantive steps with our members towards enabling each other to implement the decarbonization of the electricity sector, and we also look forward to seeing how it equips itself to deliver these services to maintain momentum.

The last point I'll make is that Canada also has a huge role to play in being a champion for carbon pricing internationally, especially by engaging with the private sector.

Thank you.

● (1555)

**The Chair:** You have perfect timing. Thank you.

Now we'll jump to Tyler McCann, with the Grain Growers of Canada.

Mr. McCann, you have 10 minutes.

[*Translation*]

**Mr. Tyler McCann (Interim Executive Director, Grain Growers of Canada):** Mr. Chair, thank you for the invitation to appear before the committee today.

[*English*]

My name is Tyler McCann, and I'm the interim executive director of Grain Growers of Canada. I'm here today on behalf of our 16 member organizations and the 65,000 grain farmers we represent from coast to coast. I personally operate a 100-acre beef cow-calf farm with my wife and kids an hour west of Ottawa in Bristol, in the great riding of Pontiac.

I will focus today on trade and climate policy, but first I would like to take a minute to talk about the Grain Growers good news story that exists on climate change.

Across Canada, you will find hard-working middle-class farm families growing the world's safest, highest-quality and most sustainable grains and oilseeds. In 2017, these farmers harvested 75 million acres of crops, producing almost 70 million tonnes of grains. Of those 70 million tonnes, wheat and canola both represent more than 20 million tonnes each, followed by corn, barley and soybeans as the major crops grown in Canada. All of that production means that grain farming plays an important financial role in rural communities across Canada. In 2017, grain sales alone put $25 billion into the rural economy, not including the impact that value-added processing of these commodities can bring.

It's important to underscore the fact that grain farmers play an important role in rural communities. Farmers invest their income from grain sales in inputs such as seed, fertilizer, fuel, machinery, and other expenses, and they support many of the small businesses and dealerships that help keep rural Canada strong and vibrant.

Farmers are not only the economic engine of rural Canada but, first and foremost, stewards of the land. Canada's rich natural capital —its healthy soil, clean water and clear skies—forms the backbone of Canadian grain farms. Farms can reach their full potential only when farmers care for that natural capital and nurture it. That is why today's grain farmers invest in new technologies and production practices so they can produce more food with fewer inputs, leaving a smaller environmental footprint and needing no new land.

An example of these investments includes minimum or no-till farming so that farmers work the soil less, conserving moisture, reducing soil erosion and keeping carbon in the ground. More than half of Canada's farmland is cultivated using minimum or no-till practices. This alone has reduced fuel use by over 170 million litres each year.

Precision agriculture and adherence to the 4R nutrient stewardship program are examples of how grain farmers are targeting application of crop inputs when and where they are needed most. Biotechnology, new crop protection products, and plant breeding innovations are encouraging efficient pesticide use and improved soil health. Across Canada, farmers are developing and implementing environmental farm plans.

All of this work has brought real results for the environment. At a time when grain production is reaching record highs, its carbon emissions are reaching new lows. The Canadian Roundtable for Sustainable Crops, of which Grain Growers of Canada is a member, has developed a data-based metrics platform that provides concrete measurements on the sustainability of Canadian grain production. This allows us to go beyond anecdotes and talk about the evidence we have that Canadian grain farmers are environmental leaders.

For example, not only has it confirmed that 80% of grain farmers have adopted no-till practices and that most grain farmers always or usually look for equipment and technologies that reduce fossil fuel use, but it has given us concrete details on the impact those efforts are having.

The data shows that Canada's agricultural soils went from being a small carbon source of 1.2 metric tonnes of carbon dioxide emissions in 1981 to being a sink, with almost 12 metric tonnes of carbon absorbed by the soil in 2011. As farmers are getting better at increasing yields, they are driving down the amount of energy required to produce those yields. In 2011, corn growers in Ontario and winter wheat growers on the Prairies were using approximately 60% of the energy per tonne of production that they used in 1981. To put this in context, an analysis of data from the World Bank, the European Commission and Agriculture Canada done by The Western Producer shows that Canada's 113 million arable acres produce effectively the same amount of greenhouse gas emissions from agriculture as the United Kingdom's 16 million acres do.

Several factors contribute to this, but the bottom line is that Canadian agriculture is part of the climate change solution, not the problem. That is why agriculture should be part of the pan-Canadian framework on clean growth and climate change commitment to international leadership.

I would like to offer some examples of what this leadership can or should look like with regard to trade and climate policy.

First, I would like to highlight the Global Research Alliance on Agricultural Greenhouse Gases. Canada was a founding member of the GRA in 2009. Since then, the alliance has been leading international efforts to coordinate and collaborate on greenhouse gas research.

● (1600)

The GRA is an example of an international effort focused on making tangible progress on reducing greenhouse gases. Its research projects focus on best management practices, monitoring emissions and increasing our understanding of how and why agriculture releases carbon emissions, so that new practices and technologies can be put in place to further reduce emissions from the sector. While it is not a headline-grabbing initiative, supporting and contributing to the GRA is an example of how Canada can and should show international climate leadership in a way that supports farmers in Canada and around the world.

Canada can go further in our international leadership on how agriculture can positively contribute to reducing GHG emissions. Many farmers around the world lack access to the tools, science and innovation that have helped Canadian farmers get to this position. It is crucial that international efforts to mitigate climate change include finding trade-enabling solutions for biotechnology, crop protection products and plant-breeding innovations.

For example, modern plant science, agronomics and biotechnology have helped to reduce the climate impact of Ontario corn by 37% over the last 34 years. In the Prairies, canola growers have been able to use biotechnology to reduce carbon dioxide emissions by one billion kilograms, the equivalent of taking 500,000 cars off the road.

Despite these significant environmental benefits of biotechnology, countries around the world continue to put up barriers to the use and trade of our safe biotech products. The unfortunate reality today is that around the world, some of the voices that are the loudest in support of climate change science are the loudest in opposing the plant and agronomic science that is helping farmers produce more with less.

Agriculture and Agri-Food Canada, supported by Global Affairs Canada, has done important work trying to find trade-enabling solutions to these barriers, but there is more to be done. International leadership to facilitate the trade in biotech crops is not just an agriculture issue, but a climate change issue, too. At a minimum, Environment and Climate Change Canada and other government departments should embrace modern agriculture technologies, and their benefits for the environment, during their international climate advocacy.

The real reason growers see international leadership as an essential component of the pan-Canadian framework is that farmers need to be on a level playing field around the world.

Earlier, I referenced the impressive 70 million tonnes of grains, oilseeds and pulses grown by Canada's hard-working grain farmers. For most commodities, the domestic market cannot consume most of that production. The good news is that there is significant demand around the world for the sustainably produced, high-quality grains than cannot be consumed domestically. In fact, many nations choose Canadian grains because they are sustainable.

This means that Canadian farmers are export-dependent. Canada exports more than half of our canola, wheat, pulses, flax and oats, with almost 90% of some production destined for export markets. For Canadian grain farmers to be able to compete in these export markets, they need to be on a level playing field with their international competitors. Canadian farmers are up against farmers from the U.S., South America, Australia and the Black Sea region when they are selling into markets in Asia, Europe and elsewhere around the world.

When farmers in competing growing regions are able to grow their grains without facing aggressive carbon policies, they are given a competitive advantage over Canadian growers. When done right, climate policies can recognize farmers as stewards of the land and support their efforts to grow more with less. When done wrong, they can saddle farmers with increased costs, making them less competitive and shifting production out of Canada to markets with little or no cost associated with a climate policy.

I'd like to repeat that grain farmers are not against reducing greenhouse gas emissions. In fact, it's the opposite, as they have been putting in place the agronomic practices and investing in new technologies that have actually helped to reduce emissions for decades. Grain farmers would welcome meaningful international agreements that put farmers on a level playing field and ensure that everyone is living up to the standards we set to reduce our environmental impact. Unfortunately, that is not likely to happen anytime soon.

That is why we welcomed the confirmation this morning that gas and diesel used on farms will be exempted from the federal carbon price backstop.

However, grain farmers will still face additional costs due to a framework that will put them at a competitive disadvantage. For example, the propane and natural gas used in grain dryers will be subject to the fuel charge. While the fuel charge will be reduced for propane and natural gas used in greenhouses, grain farmers will not be given the same relief. Our hope is that the government will reconsider that decision.

The challenging conditions that growers are coping with during this fall's harvest, caused by increasingly erratic weather patterns, have underscored the important role that grain dryers play. Just as propane and natural gas are essential for keeping a greenhouse warm, they are essential for a grain farmer during a wet fall.

Providing additional relief will not impact growers' commitments to reducing GHG emissions. Growers are already doing that, and they will continue to work hard to grow more with less.

● (1605)

In the meantime, Canada can and should continue to show international leadership on this important issue. Canadian grain farmers are already part of the climate change solution, and Canada should be proud to use them as an example of what it means to have the economy and the environment go hand in hand.

Thank you again for the invitation. I look forward to your questions.

**The Chair:** Thank you for those introductory comments from each of the three organizations.

For all of the members of Parliament at the table, I want to provide a brief explanation. This morning we were going to have a one-hour session with the World Trade Organization. We had been able to test the video technology. It was all set. Then late yesterday we received cancellation with no explanation. That's why that meeting disappeared. We are trying to get some sort of response from the WTO on the reason for their not participating. It was at their request that they pulled their name as a witness, and that's why we didn't have the session this morning, with regrets, because I think they would have been a good organization to speak to.

With that, our first round of questions, for six minutes, goes to Mr. Bossio.

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

Thank you all so much for being here today. We very much appreciate it. That was great testimony.

I apologize for this. I hate to take away any time for questions, but at this time, Mr. Chair, I would like to move a motion. I did have French and English versions, but unfortunately a couple of words got jumbled up so I'm going to read the motion as a result of that:

> That, in light of the recent IPCC report on climate change, the Committee add up to two additional meetings to the study on Clean Growth and Climate Change in Canada: International Leadership, and that department officials be invited to appear in order to provide comments in relation to the said report.

Given the nature of the study we're doing, I think it's important. This is a seminal report that has just been released, a very important report on climate change internationally, and given that this is what our report is all about, I think it would be advisable for us to have these meetings.

**The Chair:** Does anybody want to speak to the motion?

**Hon. Mike Lake (Edmonton—Wetaskiwin, CPC):** I have a point of order first.

Is this a motion that's in order, or is this a notice of motion right now?

**The Chair:** Because this is within the current study, we're able to consider motions on the study before the committee and entertain them at this time. The 48-hour notice of motion is not required. It is a motion that's being put forward for discussion at this time.

**Hon. Mike Lake:** Could we get Mike to read the motion one more time?

**Mr. Mike Bossio:** Yes, by all means.

**The Chair:** Please read slowly for our translators as well.

**Mr. Mike Bossio:** Sorry about that. The motion is as follows:

> That, in light of the recent IPCC report on climate change, the Committee add up to two additional meetings to the study on Clean Growth and Climate Change in Canada: International Leadership, and that department officials be invited to appear in order to provide comments in relation to the said report.

**The Chair:** Are there any questions?

Mr. Warawa, go ahead.

**Mr. Mark Warawa (Langley—Aldergrove, CPC):** The report we're talking about is “Clean Growth and Climate Change in Canada: International Leadership”.

The motion is talking about two additional meetings responding to the IPCC report. Last week we talked about pollution and that polluters will have to pay for pollution. We asked for two meetings on that, and it was sad that the committee decided we're not going to study the issue of polluters paying for pollution.

I find this a little confusing, that we're not going to deal with pollution but we're going to deal with the IPCC report. I will support the motion, but I find it concerning that when we actually deal with pollution and the lack of enforcement, the component of enforcement, the committee did not want to deal with that. Regarding Volkswagen, the pollution fines they experienced in Europe and in the United States were at $14.7 billion, but in Canada we don't want to talk about enforcement relating to pollution.

I will support the motion, but I find it concerning that we are being selective and not consistent.

Thank you.

● (1610)

**The Chair:** Okay, thank you.

Mr. Stetski, go ahead.

**Mr. Wayne Stetski (Kootenay—Columbia, NDP):** Just to be clear on what happened at the last meeting, I certainly put forward the suggestion that we should get enforcement people here before the committee as part of the existing study. What was problematic was getting Volkswagen to come to the table. That's what was not supported. But I certainly put forward the notion that we should be inviting our regulatory people to come. Maybe they can be part of those two extra meetings for a discussion.

**The Chair:** If I could make a comment, we did reach out to ECCC, Environment and Climate Change Canada, about having departmental officials come. They indicated that they would be willing to come, although they didn't feel they would be able to speak to details of the ongoing investigation related to the VW case specifically.

We can invite them. We do have two sessions next week with four organizations per panel, so they're pretty full. We could invite enforcement, but they felt they would have limited input. That was the information that was conveyed to the clerk. If the will of the committee is to request that, I'm happy to do so. Just know they may not have a lot to offer.

We can put them before us and see what they are willing to respond to.

**Mr. Wayne Stetski:** I think we need a sense of confidence that our enforcement people are enforcing laws, which is why I would very much support having them come before the committee.

**The Chair:** Is there anybody else who would like to speak to the motion?

**Mr. Mark Warawa:** Could we have a friendly amendment, then, that they be invited? The issue regarding Volkswagen is that they've pleaded guilty both in Europe and in the United States. What is Canada doing? Right now it appears we're doing nothing, and that's very concerning.

Maybe they could come and report on enforcement in general, on what is happening. We have legislation, yet we're not enforcing it. That's very concerning.

**The Chair:** We have a motion on having witnesses related to the IPCC report, and we've now moved into a discussion on witnesses related to the framework. I'd like to move us back to the motion.

We do have the ability and the request before the committee to have the enforcement witnesses come. I'd say we can deal with that separately. We'll reach out to them and see if they can come either Tuesday or Thursday. That will be part of our existing schedule and it goes with the previous discussions and workings of the committee.

I'd like to return us now to the motion we have.

**Hon. Mike Lake:** Can I ask a quick question? What was the specific date of the IPCC report?

**The Chair:** It was October 8.

**Hon. Mike Lake:** The point I would make, respectfully, to Liberal colleagues is that we've had at least one subcommittee meeting since then. This could have been brought up at the subcommittee meeting so that we don't waste the time of our witnesses by bringing it to the floor in the middle of a meeting. It's something that definitely could have been discussed before.

**The Chair:** Are we willing to vote on the motion?

(Motion agreed to)

**The Chair:** Thank you.

With that, Mr. Bossio, you're out of time, and we'll move back to our questions with our witnesses.

**Mr. Mike Bossio:** I had so many good questions.

**The Chair:** Next up is Mr. Lake.

**Hon. Mike Lake:** I'm going to start with the Pembina Institute.

Isabelle, talking about carbon taxes you brought up the target of reductions—50 million to 60 million tonnes by 2022. You talked about the price increasing beyond 2022. What does Pembina recommend the price ought to be increased to beyond 2022?

● (1615)

**Ms. Isabelle Turcotte:** We feel that it's important to maintain the signal for emissions reductions so that we continue to make progress toward full decarbonization. There are no tools that we can leave on the table. We don't have a clear proposal at this point, although what I would say is that there have been claims that the price would increase to amounts that look like $300. This is far from what we are suggesting or thinking about when we're talking about a price increase beyond 2022.

This number that has been raised is the price of carbon should we not have any other measures in place to reduce emissions. This is not what the pan-Canadian framework on clean growth and climate change proposes. I think that for the certainty of investors, a schedule of increase that just stays the same, a $10 per tonne increase annually, is a reasonable proposal.

**Hon. Mike Lake:** I have the same question for Greenpeace. What number should we be targeting for our price eventually?

**Mr. Keith Stewart:** I have a very similar answer. A lot depends on what else you are doing. If you're doing big investments in public transit, which is going to help people get out of cars, if you're bringing in a zero emissions vehicle mandate so that there is a required percentage of vehicles that are electric, you can do it with a lower carbon price.

At a minimum, I would agree with continuing the $10 per year increase, but I think it could go much higher. If you're just doing carbon pricing, the price would have to be much higher, particularly if you're looking at trying to keep within the 1.5°C target, as put out by the IPCC. They argue that there are benefits to communities and to nature from lower emissions and faster action on reductions.

We should be sending a signal that it is going to be at least $10 per year so that industry can make investments appropriately. They know that's coming. My preference would be that all money from carbon pricing get reinvested into other measures that are going to reduce greenhouse gas emissions.

In Ontario, we're actually getting a bigger bang from the reinvestment of cap-and-trade dollars than we were from the pricing law itself. It depends on how you spend the money, but it has to keep going higher. It has to keep going up. I understand the decision today to rebate individuals to help ease that transition, but we also have to increase investments in green infrastructure.

**Hon. Mike Lake:** I have to weigh in for a second, on both fronts. It was interesting to hear both of you mention that there are alternatives we could implement that would result in less need for a carbon tax, which is what I think I heard both of you say.

Certainly, as a country, we ought to be exploring every alternative we can to avoid having to tax our already overtaxed population more. I'm going to go to Tyler for a second.

Tyler, you talk about the export dependence of our agricultural communities. My riding is the largest in Canada by population, in Edmonton—Wetaskiwin. I'm hearing significant concerns about the carbon tax right now as it relates to our competitiveness relative to our largest trading partner and neighbour, which has no carbon tax at this point in time. The concern is that if you rob our economy of the revenues that we receive from sales and the taxes that companies pay because of their higher revenues, you actually rob us of our ability to fund the innovations that both of our other witnesses were talking about today. Could you speak to that a little bit?

**Mr. Tyler McCann:** I think what we're always encouraged by is the broad recognition that grain farmers are export-dependent. I think the government offered some of that recognition today when it exempted diesel and gas used on farms.

As I said earlier, if we were truly playing on a level playing field, Canadian grain farmers could compete with anyone and would be quite happy to support policies that keep us on that level playing field with others, but today we're not at that point. Today we are forced to compete with farmers from around the world. As long as we're in that situation, we're going to continue to ask for policies that recognize that and are cognizant of that important reality that we have to face. We don't have any other alternative available to us.

I think the good news is that, in the meantime, while lots of people have been talking about action, grain farmers have actually been acting and taking the steps necessary to reduce their environmental footprint. I think that's the good news story that we want to tell.

● (1620)

**The Chair:** You're right on time. Thank you.

Mr. Stetski, go ahead.

**Mr. Wayne Stetski:** Thank you.

Thank you all for being here today.

My first question will be for Keith and Greenpeace.

On April 3 of this year, Clean Energy Canada released a report called "The Economic Impact of Improved Energy Efficiency in Canada", and it was very encouraging. According to some of the information they presented:

> [I]mplementing the energy efficiency actions in the PCF [the pan-Canadian framework on clean growth and climate change] will add 118,000 jobs (average annual full-time equivalent) to the Canadian economy, and increase GDP by 1% over the baseline forecast, over the study period (2017-2030).... Canadian consumers would save $1.4 billion on energy bills per year [and] Canadian business, industry and institutions would save, on average, $3.2 billion each year.

Those are very encouraging opportunities going forward. Have you seen anything coming forward to help achieve those targets yet under this plan?

**Mr. Keith Stewart:** There is some work being done on energy efficiency standards, but I would say it doesn't go fast enough.

To answer your question, and also to come back to one of the previous comments, if we were having this discussion when I first went to one of these meetings in 1994, I would have asked, "Do we do this or that?" To echo Isabelle, at the moment we have to do energy efficiency and carbon pricing and investments in public transit. We have to do all of these things. It's not whether we do this or that. We need them all, and energy efficiency is one of the cheapest and easiest reductions.

Some of the proposals include aiming for a net-zero building code by 2025. A building built after 2025 has to produce as much energy as it uses. You can only do that with significant improvements in energy efficiency, but also by having wind and solar installations, etc.

We need that whole package, and efficiency is a big part of it. If I replace my incandescent bulb with an LED that does the same job and uses 5% of the electricity, I can still read my book. I'm happy and I'm using so much less energy that it's a lot easier to get it from clean sources.

Those are the kinds of investments we need to make. We need to help turn over that capital stock, and we really need tough codes and standards to ensure that anything new that's coming out into the marketplace is the very top of efficiency.

**Mr. Wayne Stetski:** What can the federal government do to encourage that, in your mind?

**Mr. Keith Stewart:** The federal government has a model building code that provinces can opt into or out of. The government can provide incentives for provinces to opt into that. It could greatly improve that. It can drive efficient appliance standards and make them much higher. In particular, the big decision coming up is on autos. It is important to improve the efficiency of our vehicle fleet and transfer it or shift it away from the internal combustion engine to primarily electric, probably, but there could also be some fuel cells, etc.

For the lower, close to zero-carbon transportation alternatives, we really need cogent standards, because if you try to do that with just a carbon tax, the carbon tax has to be super high to get big uptake, whereas, as we've seen, if you raise the building code, no one really notices that there's more insulation in their walls. It's not the kind of thing that anyone sees, but the fact that their heating bills are lower is good for their pocketbook. It's good for the environment, and it's good for our future.

**Mr. Wayne Stetski:** I'll turn to the Pembina Institute for just a minute. One of the things you mentioned was the transition to zero-emission vehicles, and again, I have the same question. What would support from the federal government look like, in your mind, to help get to zero-emission vehicles?

**Ms. Isabelle Turcotte:** One of the issues with zero-emission vehicles is that we need to get on board the people who sell the cars. We need them to feature these electric vehicles or lower-emission vehicles so that Canadian consumers can begin to experiment with them and get more familiar with them. Right now there is an issue that these vehicles are not available when Canadians want to visit their car dealerships to see what they look like.

There's work to be done working with dealerships, and there's also work to be done through providing financial incentives, but we also need a target set for the number of sales. A target for electric vehicle sales would be a good start. Offering incentives to purchase is another important step, and making sure that we have those vehicles in stock.

● (1625)

**Mr. Wayne Stetski:** I'm seeing the ads for the new electric Jaguar. If I had the money, that would be a sweet vehicle to have for sure.

On agriculture, Tyler, I thought a lot of your recommendations were very practical. You have a bit of a concern. You said that Canada's biotechnology should be part of trade agreements but there's push-back from other countries. Can you explain that? Why is there push-back?

**Mr. Tyler McCann:** It's hard for me to explain it. In my mind we're looking at a piece of technology that is widely recognized as safe. Competent authorities all around the world have undertaken significant reviews of biotechnology products and have said these products are safe for human consumption, the environment, and the animals they might feed, so it's hard for me to understand why countries put up these barriers. But they choose to, and it has a negative impact on the environment and the farmers and the consumers who don't have access to the products as a result.

**The Chair:** Thank you.

Mr. Amos.

**Mr. William Amos (Pontiac, Lib.):** Thank you to all three of our witnesses. It's greatly appreciated. We always appreciate having a Pontiac farmer before this committee. It's a rare occurrence, but a very positive one.

Mr. McCann, you mentioned the export dependence of the grain growers across Canada. You've highlighted the importance of trade. I want to start with the big picture, before zoning in on this climate leadership aspect.

What do the new trade deals, including the U.S.-Canada-Mexico deal, but also the Pacific, also with Europe, signed into law by our government mean for Canadian grain growers, and maybe more specifically for Pontiac grain growers?

**Mr. Tyler McCann:** What these trade deals mean, and the benefits they bring for farmers in the Pontiac or across Canada, is certainty, opportunity and a bright future. Canadian farmers are doing an excellent job producing more food. The Canadian population is growing, but it's not growing fast enough to consume all the food we're making, so we need these opportunities, these deals, to make sure the doors are open.

We were talking a moment ago about the impact of barriers related to biotechnology. One of the things the USMCA did was further advance text in a trade agreement that helps prevent barriers from being put in place. I think the USMCA—and we certainly applaud the government for taking the necessary steps to conclude those negotiations—will bring a really meaningful benefit and will have a real impact on the lives of farmers across the country.

Someone farming in Pontiac may not understand what that means. The reason they don't understand what it means is that they can sell grain off their farm and there's a market for it around the world. They don't have to worry about who's going to buy their grain at the end of the day. The global demand is there and these trade agreements mean those global customers can have access to the high-quality grains we produce.

**Mr. William Amos:** That's very helpful. For someone like me who's not a farmer, it's also helpful to try to—“monetize” is the wrong word—render it even more concrete. I understand the idea around protecting and enabling access. It's enhancing access to markets. Roughly how many grain farmers are we talking about in the Pontiac, and what kind of price increase or market access would be important to them?

● (1630)

**Mr. Tyler McCann:** I can't give you a firm number on grain farmers in the Pontiac, but agriculture in the Pontiac is a growing reality. It's allowing more and more farms to grow and thrive. It's also hard to put a dollar figure on the benefit these trade agreements bring. Agricultural commodities often trade in global markets, and unfortunately, recently agricultural markets have been impacted by policies put in place by others around the world that are disrupting those global markets that are so vitally important to us all. But it would be worse if we didn't have the trade agreements that your government has concluded and has given us.

**Mr. William Amos:** Thank you for those comments.

I want to shift to our witnesses from Pembina and Greenpeace.

[*Translation*]

Ms. Turcotte, you said that today's announcement on carbon pollution pricing is cause for celebration and a positive measure.

Why is it vital for Canada to have carbon pollution pricing and to take other measures to demonstrate global leadership?

[*English*]

**Ms. Isabelle Turcotte:** First and foremost, what's most important for Canadians is that we have access to good air quality and healthy ecosystems, and we have to use all of the measures available to us to get there. What the federal Liberal government is demonstrating today is leadership, despite criticism in some provincial jurisdictions, on moving forward and implementing a measure that is seen and understood by economists and policy-makers across the world as the most cost-effective tool to reduce emissions. We have a Nobel Prize laureate who is telling us carbon pricing has to be part of a comprehensive and effective climate change plan if we are to get to our target of limiting temperature rise to 1.5°.

I would say Canada is demonstrating leadership in implementing a credible climate plan and is joining 70 jurisdictions that are doing the same.

**The Chair:** You're out of time, Mr. Amos.

We'll go over to Mr. Warawa.

**Mr. Mark Warawa:** Thank you, and thank you to the witnesses for being here.

I'm reading an article here from Pembina. It was authored by Sara Hastings-Simon. It highlighted the different ways of reducing our carbon footprint in the present time, in the mid-term, and in long-term goals. The paragraph I'm going to refer to is, “By making polluters pay, a price on carbon pollution kickstarts behaviour changes and innovation.”

That's the goal of putting a price on carbon to change behaviour, to change how people are using carbon as an energy source.

What I heard Pembina and Greenpeace say suggested a $10 a tonne per carbon increase per year will help this change going and continue to create innovation within manufacturing and how we use energy. I think back then to 10 years ago from where we are today. In British Columbia, which is my home, a carbon tax was introduced at $10 a tonne. At a $10 a tonne increase per year, it would be $100 a tonne. Right now it's $35 a tonne and emissions are going up. In British Columbia emissions are going up.

During the slowdown of 2008-09 during the recession, emissions did go down a little bit, and British Columbia acknowledged that's why emissions went down, but over the last four years emissions have gone up. Actually they have gone up 2.3%, yet the price on carbon is going up. I think British Columbia over the last 10 years had shown that a price of carbon of $35 a tonne is not making people change. People are still driving their cars.

I was really encouraged by comments about efficiencies. The home improvement tax credit the former government introduced had a huge uptake. People made their homes much more efficient. It was greatly successful. As of 2011, passenger vehicles reached a whole new standard and became much more efficient. With fridges and stoves and the densification of our communities, we became more and more efficient.

I think we have made a huge headway through those advances in reducing the amount, yet in addition to that we put a price on carbon of $35. Where there's the highest cost of living in Canada is where the carbon tax is, yet emissions are going up.

I think back to the IPCC report saying that they are not nearly high enough, that to make people change, to get people out of their cars, for people to put on more sweaters in their home and turn down their thermostats, we need to dramatically increase the price of carbon.

If we're talking already of a year from now we're looking at $150, and I think the figure mentioned by Pembina was $300 per tonne.... I think the question Mr. Lake asked is, what is that magic figure? To this point at $35 a tonne it is not changing behaviour in British Columbia. We've learned that in 10 years. We've made great strides in efficiencies, but the price on carbon has not done it.

I'm dubious about what the government has announced today. I don't think it's great news. I think it is a bit of politics at play. It's cheap politics promising people they will take money as a form of a tax and give it back as a gift. I think we need to do a better job and that we all need to commit to do a better job in cleaning up the environment.

I want to ask a question to Mr. McCann on farming.

● (1635)

In my area of British Columbia there's a lot of farming. If if we download the cost of energy onto farming.... If we make industry non-competitive, they will relocate. We're already seeing that with the government's policies. Business is relocating to jurisdictions like the United States, where there is no carbon tax, but farming can't do that. It just makes your product less competitive and more expensive.

Could you comment on the challenges? You said you've asked the government to make you exempt for propane and natural gas for drying. How important is that, and if you don't get it, what does it mean? You won't be moving your farm, but is it going to mean a lack of growth and investment in farming?

**The Chair:** You have 15 seconds, just so you know.

**Mr. Tyler McCann:** The short answer is that while we can't move farms, we can leave tractors in the yard. That could certainly be the impact of pricing that gets to be exorbitant and makes us less competitive.

Grain drying is essential. This year, in particular, it's needed in order to get crops off the prairies and into bins, into storage and into markets. The additional carbon price will have an impact.

**The Chair:** Thank you.

Ms. Dzerowicz, we'll move over to you.

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

First I want to thank all three of you for your excellent presentations.

I want to also say an extra thanks to Mr. Stewart for coming back around to Mr. Lake's comment in terms of whether or not there were alternatives to pricing pollution, and indicating that we have to move on a number of multiple levels at the same time to be able to achieve our Paris accord targets, which is what we're trying to do.

It isn't just the choice of pricing pollution, or looking at some alternatives around energy or looking at some of the clean, green investments that we have to make. It's on all three of those areas, if not more, that we have to move. I really appreciated your clarifying that.

I'd like to give an opportunity to both Ms. Turcotte and Mr. Stewart to respond to Mr. Warawa's comments, because I think we have to clear up the misperception that if you put a price on pollution, it leads to higher emissions, so why do it anyway. I don't want that to stand alone on the record.

I'll start off with you, Ms. Turcotte, and end with you, Mr. Stewart.

● (1640)

**Ms. Isabelle Turcotte:** In B.C., the price began at $10 a tonne in 2008, and the increase was about $5 every year, but it's very important to note that there was a freeze on the increase at that price in, I think it was, 2011, and we can see that at that point, the signal stops, and fuel consumption.... I'm sorry that I don't have this information to share with the rest of the group, but I'm happy to share it with the committee later. We can see that the sale of fuels goes up when the signal stops increasing.

I would argue that B.C.'s case is indeed an argument in favour of keeping a strong signal to reduce emissions through an increasing carbon price.

**Ms. Julie Dzerowicz:** Mr. Stewart.

**Mr. Keith Stewart:** Yes, there's been lots of academic research done on the B.C. carbon tax. It's the perfect study that economists love to do, a nice case study. It's shown that emissions would have gone up much more without the carbon tax in there.

The example I use with my students is that I now weigh 10 pounds more than I did 10 years ago. If I weren't biking to work every day, I would probably weigh 20 pounds more. If I wanted to lose weight, I'd have to do more. I'd have to have a better diet and exercise even more. Those are options that are available to me, but because I've gained some weight, it doesn't mean that biking hasn't had any impact.

Without the carbon tax, we would have seen much higher increases, primarily driven by population growth in B.C. B.C. has been growing rapidly, so that means new construction, more vehicles, etc. The carbon price has helped temper that increase, but we need to have it higher to really start bringing emissions down.

**Ms. Julie Dzerowicz:** I'm going to shift topics now.

Mr. Stewart, you talked about trade and climate policy and you said there are eight planks that Greenpeace has. I'd love it if you could, in the future, just send that off to the committee so we could have a sense about those.

On that topic, has there been any country that has adopted any one of those planks in their trade agreements? Has any country successfully incorporated that? If you don't know, that's fine. I just wanted to know, because I'm very interested in trade policy as well. I do know we try to add an environmental component to each of our trade agreements now.

Do you know of a country that has successfully done that?

**Mr. Keith Stewart:** The Europeans have implemented more of these types of measures. They actually have more teeth in their environmental policies. I would say that one of the eight was to get rid of the chapter 11 investor-state dispute system, which is now done, which is good, but I will share that with the committee.

It's sort of jointly from Greenpeace, the Sierra Club and Natural Resources Defense Council. There is a whole bunch of groups that signed onto it. The main thing is that environmental stuff is sort of nice to have in all these agreements and it would be great if these things happened; however, the agreement is about making sure that these things will happen and those things will not happen around economics of trade and protecting corporations and their prerogatives. We need to actually reverse that so that the climate and environmental protections are actually the primary thing guiding these types of agreements, so that the agreement is actually helping to facilitate the transition to a low-carbon world.

**Ms. Julie Dzerowicz:** Okay, I appreciate that.

Ms. Turcotte, you ended off your presentation talking about the huge role the private sector can play in being more ambitious with our targets. Can you maybe elaborate a bit on that and whether there's also a role for small business, or are you also talking about big business?

**Ms. Isabelle Turcotte:** I would say that for businesses, for Canadian entrepreneurs, it's a huge market opportunity. From their perspective, from their angle, it's not so much about what they can do to reduce emissions as what they can do to make sure Canada produces, manufactures, exports and sells in its domestic market the clean technologies, the low-carbon technologies that are the future of those markets.

Let's not make any mistake. That's where other countries are going. We're not the only ones with reduction targets, and we're not the only ones seeing the opportunities.

● (1645)

**Ms. Julie Dzerowicz:** Thank you.

Then you also mentioned—this is something Davenport residents point out to me all the time—that we have a 66-megatonne gap in our plan to achieve our Paris accord targets. Is there any country that has fully costed out its plan on achieving its respective targets? Are we the outlier, or is everybody on the same track as we are, where we have a plan in place, we're busy implementing it and we're still struggling to make sure we account for everything? Are we kind of in line with where most countries are in trying to achieve their Paris accord targets? Are we the only ones—

**The Chair:** Answer quickly, please. We are out of time.

**Ms. Isabelle Turcotte:** I would say the reason we have a gap is that we have to make progress very quickly on years of inaction, so we're starting with a bit of a delay. Other countries are also seeing similar challenges, but this shouldn't hold us back.

**The Chair:** Next up, we have Mr. Genuis.

**Mr. Garnett Genuis (Sherwood Park—Fort Saskatchewan, CPC):** Thank you, Mr. Chair.

It's a pleasure to be here visiting at the environment committee.

I wanted to ask a question that has sort of been on my mind. I started studying these things in my university days. It's a frustration or a problem about how we measure who's responsible for what in terms of the international community around carbon.

We look at current or historical carbon levels generally, and then we ask countries to make reductions relative to those historical levels. At the same time a country may increase its economic development during that period, or it may reduce its economic development. A country might take over more of the world's energy production by doing it in a cleaner way, but in the process it might be increasing its emissions but having a positive effect on global emissions.

For example, if Canada dramatically develops relatively low carbon but still has carbon-emitting energy sources and exports its production—that's not hypothetical, of course—we might well be increasing our emissions while having a positive effect on global emissions by out-competing other higher-emitting jurisdictions. It seems to me a bit of a problem to only look at, in isolation, how nations are doing in terms of historical trends without looking at the intensity of their production and the impact that intensity of production has on global emissions.

That problem of measurement has a policy consequence. It means that then we think about our goals as being to impose, for instance, in the case of this government, taxes on energy production, which discourage production—don't necessarily encourage cleaner production, just discourage production—and chase that production to less environmentally friendly jurisdictions.

I'd love to hear comments from Mr. Stewart and Ms. Turcotte on what they think of what I've proposed, and if there are better ways for us to look at, let's say, the kinds of obligations a country should have that take into consideration this problem.

**Ms. Isabelle Turcotte:** I'm happy for Keith to go first.

**Mr. Keith Stewart:** Sure.

There's huge literature on this in terms of how you assign these things. The basic principle that the current treaty comes down to is this: Countries are responsible for the emissions that they control directly, that happen within their territory, because that's a principle of sovereignty. It's hard to account for things when you export LNG to China, for instance. If it displaces coal, there is a net benefit. If it displaces renewables, there is not. It's hard to figure those things out. This was actually one of Jean Chrétien's big things. He wanted to have that system.

The challenge is that every country wants to get credits for the good things they do, such as the low-greenhouse gas stuff, but then they don't want to have to account for perhaps the less-good things they have. This is where, if we were to shift to a system of including downstream emissions, which is one of the proposals, Canada then, as a major oil exporter, for instance, would be responsible for a larger share of global emissions than we are right now, just looking at domestic emissions within Canada.

You have to take the good with the bad when you try to shift these types of things. Right now, basically, governments can control what happens in their territory. That's how the accounting is done, but there are lots of other ways you could do it.

● (1650)

**Mr. Garnett Genuis:** It seems to me you're saying that this is the simpler way of doing it, but you haven't really responded to the proposal that this somewhat perverse measurement system leads to perverse outcomes. To take a somewhat absurd hypothetical, let's say Vatican City started producing natural gas very, very efficiently. They would be increasing their emissions but very clearly decreasing global emissions if they were able to displace coal, etc. But given that their present emissions are presumably virtually nothing....

Doesn't this measurement problem have consequences for us in that it discourages us from developing resources that might actually improve the environmental situation globally?

**Mr. Keith Stewart:** I think one of the ways is that you could try to work this into agreements like the UNFCCC. There are mechanisms that deal with this. One of them is, or could be, ITMOs.

**Mr. Garnett Genuis:** Sorry, ITMOs...?

**Mr. Keith Stewart:** ITMOs are the tradeable emissions allowances, the internationally traded mitigation options.

In terms of national emissions, these are relatively, or usually, at the margin. If we actually had that work toward a global carbon pricing system, for instance, or even had a system of carbon tariffs, we would be accounting for this and rewarding those people who are lower carbon producers.

**Mr. Garnett Genuis:** But we wouldn't at all, though, right? It's not at all marginal. I'm on the foreign affairs committee normally, and I was part of a trip to Inuvik recently. We met with leaders in Inuvik who expressed frustration about the fact that they're sitting on a whole bunch of natural gas that they see as a great opportunity for production and export.

Now if we could develop our natural gas resources in the north, if we could be exporting more of that to partners in Asia, that would quite clearly, I think, have positive consequences in terms of reducing global emissions, but it might also involve significant development of a non-renewable resource in Canada.

I don't know for sure, but I suspect that your organization might be skeptical of the proposition of developing more of our energy resources in the north, but if they're developed for export and are displacing less-clean sources of fuel, isn't that positive in terms of responding to the global challenge at a global level?

**Mr. Keith Stewart:** I would say that if you want to increase those objectives, the best thing would be to reduce consumption here to free that up, rather than invest in new, expensive infrastructure to extend the life of fossil fuels.

The real question in Asia—again, there's a lot of research on this—is that it's not actually clear that natural gas exports to Asia at this moment would displace coal or displace renewables. There's a lot of action being taken to reduce coal in Asia, so it might or it might not. We don't know. We don't currently work those types of things into agreements—i.e., "You can only buy this stuff if you promise that it will help reduce coal."

This is why, from an accounting perspective, I think there are some numbers you know you can track, and a bunch you can make educated guesses on, but if you have an international system, everyone's going to try to make those educated guesses to their own benefit. If we were going to do that for natural gas exports, we should probably do the opposite for high-carbon oil, for instance.

**The Chair:** We're out of time, sir.

We'll move to Mr. Fisher for six minutes.

**Mr. Darren Fisher (Dartmouth—Cole Harbour, Lib.):** Thank you, Mr. Chair, and thanks very much, folks, for being here.

Ms. Turcotte, I heard you talk about scientists and Nobel Prize winners supporting a price on pollution, and then you look at the United States and see that large oil companies, such as Exxon, support putting a price on pollution. In fact, Exxon has been quoted saying that pricing pollution "is one policy option being considered by policymakers that offers the best prospects for progress at the lowest economic cost to society".

I think it was Tyler who was saying earlier that many industries are recognizing the importance of environmental responsibility, doing good things and, hopefully, also seeing the opportunities in and the cost savings of making these changes.

Three times, you used a phrase that I really liked: increased ambition. Along with pricing pollution, what other measures should we take to ensure a timely switch to a low-carbon economy or, as you would say, to increase our ambition?

● (1655)

**Ms. Isabelle Turcotte:** I would say that the Canadian companies that are benefiting from the shift to a cleaner economy and this transition to clean energy are just quietly working away right now and making sure that they're the ones that have the best technologies to export into these markets. This clean-tech sector in Canada is burgeoning. I think something like carbon pricing is definitely making sure that there's a demand in Canada for their products. Canada can further support this sector, I think, by helping to showcase them internationally through those trade missions.

**Mr. Darren Fisher:** Okay. Moving on with that same tack about the clean-tech companies and our current government investing in clean tech, we know that developing countries feel the effects of climate change worse than many others.

**Ms. Isabelle Turcotte:** Right.

**Mr. Darren Fisher:** With so much climate financing available through private and public funding to finance the clean technology effort, it should also be seen, as I said earlier, as a huge opportunity. Over the past four years, more than $61 billion U.S. has been climate-financed across the world.

You talked about burgeoning clean tech. My riding is Dartmouth—Coal Harbour, and I will tell you that there is a burgeoning clean-tech industry there that is growing by leaps and bounds. Are Canadian companies specifically benefiting from the global climate finance opportunities?

**Ms. Isabelle Turcotte:** I would say that this connects us to the last question we received. Energy needs in developing countries are growing. How do we want to respond to those needs? Ultimately, the planet has a carbon budget that we need to respect to limit our temperature rise to 1.5°.

I would argue that there's a huge opportunity to leapfrog technologies in these countries and make sure that countries in Asia, Africa and Latin America have the cleanest grids possible and that they buy those smart grid technologies from Canadian companies. That can include renewable energy technologies, the solar panel, the storage, the batteries and the IT equipment that goes along with making a grid smarter.

**Mr. Darren Fisher:** Thank you.

Tyler, how are the effects of climate change specifically affecting your industry?

**Mr. Tyler McCann:** This fall has been a challenging one for grain farmers across the country—

**Mr. Darren Fisher:** You said you were part of the solution and not part of the problem, so....

**Mr. Tyler McCann:** We are, and we look forward to working with government.

Earlier, there was talk about Nobel Prize winners. Last week, the World Food Prize was handed out. It's a prize created by Dr. Norman Borlaug, who is considered the father of the green revolution. He won a Nobel Peace Prize for his work to create new varieties of wheat that were more resistant to lodging. It helped feed millions of people around the world and had a significant negative impact on starvation.

There's a community of people doing really important research to look at how we reduce the impacts of climate change on agriculture. These are people who are carrying on that tradition of Dr. Borlaug and are using new technologies to make crops that are more resistant to drought or to flooding and better able to manage the increased pest pressures that we see as our climate has changed over the years.

It's really important for governments to keep up with the work that our scientists are doing by putting the right frameworks in place so that farmers can have access to these new technologies and can help mitigate the impacts that climate change will have on them.

**Mr. William Amos:** I'll gladly take advantage of that and ask a question to our friends at Pembina and Greenpeace.

I think we just heard a piece of the Conservative Party's climate plan, which was to suggest that we ought to be drilling in the western Arctic to achieve global benefits. Would you agree with that kind of idea that we need to be drilling in deep-water areas of the Arctic in order to get to our international targets?

● (1700)

**Ms. Isabelle Turcotte:** I would say in terms of exploiting its oil and gas and natural resources, Canada needs to demonstrate how it does so in a way that is consistent with meeting its own target under Paris. There's an opportunity to make sure that we evaluate projects in terms of their climate impact through Bill C-69. We look forward to making sure that projects are well evaluated and take these concerns into consideration.

**The Chair:** Thanks, everybody.

Just looking at the time, we're going to be at our last question, which would go to Mr. Stetski for three minutes. If there's agreement, we could add three six-minute rounds: one for Mr. Stetski, one for the Liberals, one for the Conservatives, and then give Wayne his three-minute concluding spot at the end of that. That will take us 21 minutes, which would be near the end of our allotted time before an agreement.

**Hon. Mike Lake:** What would those rounds look like?

**The Chair:** It would be Mr. Stetski for six minutes, then over to the Liberals for six minutes, to the Conservatives for six minutes, and then back to the NDP for three.

**Hon. Mike Lake:** That sounds good.

**The Chair:** We have Mr. Stetski for six minutes.

**Mr. Wayne Stetski:** Thank you.

I want to go back a bit to transitioning from fossil fuel to a green energy economy. I will ask if you have some really good papers or research on practical ways to do this transition. If you could send them to the committee, that would be appreciated. I'd like to hear from you on that because we hear about that all the time. We need to transition. Some people say we need to stop fossil fuels or any additional growth today. Others say we need a time to do it. I certainly support the need to move to green energy over time.

Perhaps we'll start with Greenpeace. Have you seen, and do you have any practical recommendations on how we actually transition from fossil fuels to green energy?

**Mr. Keith Stewart:** There's a pretty decent model in Alberta with the approach to coal where they've set up coal phase-out dates. They said they're going to shut down the coal plants and come up with an agreement with the companies involved to manage that economically for them, but they're also providing support to the communities that mine coal and the workers there to make sure they don't bear a disproportionate impact of this policy decision.

Canada's also part of a global effort to work on transition for coal workers, which is also a good thing. Certainly from the Greenpeace perspective we're saying we shouldn't have new fossil fuel megaprojects. That might not be every single project, every stop, but certainly on these massive projects we need that money desperately for the alternative. We need to avoid what the International Energy Agency calls “carbon lock-in”, where you build big, new things and then you want to run it to the end of its life, and that's often 40 to 50 years. If you read the IPCC report, you see we have to be at net-zero emissions globally by 2050. Building something now that's going to come online in 2025 and operate for 50 years doesn't make sense. You're creating a stranded asset. You're building a white elephant.

The IPCC was very clear. We have the technology. We have the economic means. We just have to get the policy in place to make that rapid transition. They have some good suggestions in their reports. I can also share some other academic research with the committee. We're seeing this at the smallest scale in Alberta. Look at how that works, make sure it's working for the communities, assess that, and then expand that model outwards to other fossil fuel sectors to make sure that communities and workers are protected as we do a planned, rapid transition off of fossil fuels and on to green energy.

**Mr. Wayne Stetski:** Pembina Institute...the same question.

**Ms. Isabelle Turcotte:** A lot of the pieces of the climate plan that I touched on during my opening remarks give examples of where you can impact both the demand and the supply for fossil fuels. There are very practical things that we can do with increasing active transportation, increasing access to public transportation as well. There are lots of things that we can do.

In terms of energy efficiency in buildings, something that we didn't mention earlier is that none of the provincial codes currently look at the existing stock of buildings. This is a huge opportunity that should be exploited for emissions reductions and for increasing the comfort of Canadians and decreasing their energy bill. In all sectors, in transportation and buildings, there's something more that can be done for sure.

● (1705)

**Mr. Wayne Stetski:** Tyler, I'll ask you the same question. What does that look like from an agricultural perspective, when you hear “moving away from fossil fuels”?

**Mr. Tyler McCann:** I see another opportunity for grain farmers to be part of the solution.

There's an existing renewable fuel mandate across the country. The government had started down the road toward a clean fuel standard. I think farmers across the country see a great opportunity to use some of this new production we're bringing online every year to introduce really energy-efficient crops, including as a renewable fuel source, and to expand the role they can play. Canadian farmers could benefit from this. The Canadian government could take a real leadership role in moving forward with the clean fuel standard. It should be part of a comprehensive plan, moving forward.

**Mr. Wayne Stetski:** I'll hold it there.

**The Chair:** You still have a minute.

**Mr. Wayne Stetski:** This is my last question, then. Maybe I won't need my extra three if we can make it really quick, but if we run out of time, we'll go over to the three minutes.

If I were to wave a magic wand and each of you were the Minister of Environment tomorrow and were told you could implement only one aspect of this need for a multi-level plan, what would your priority be? I'll start with Greenpeace perhaps.

Keith, go ahead, if you don't mind.

**Mr. Keith Stewart:** The thing in the pan-Canadian framework right now is the supply-side measures, how we are going to take action on the supply side so that we are, as economists say, “cutting with both sides of the scissors”. By reducing supply, we also increase the price. We make alternatives more attractive. Building into things like the planning processes, a true climate test for new infrastructure projects would be one of the big things for me. That would be high on my list.

**The Chair:** You may have to carry the rest of the answers over to your last slot.

Mr. Bossio, go ahead for six minutes, unless you have any other motions that you want to bring forward, in which case you'll definitely lose that.

**Mr. Mike Bossio:** I get to ask questions this time. That's awesome.

Thank you, Mr. Chair.

Thank you once again, guests, for being here and for the great testimony. I'm glad I have an opportunity to pose some questions, and I'll get right to it.

Mr. Lake stated earlier that Greenpeace and Pembina were both saying that we don't need a price on pollution, and that we can use other means to get there, to reach our targets.

I don't think that's what either one of you were saying. Am I correct on that?

**Hon. Mike Lake:** On a point of order, I would just clarify that I did not say that they said there was no need for carbon pricing. Clearly, they did. I just want to correct the record on that, if you're quoting me.

**Mr. Mike Bossio:** Okay, sorry.

**Hon. Mike Lake:** I was just suggesting that they had suggested there were alternatives to carbon pricing.

**Mr. Mike Bossio:** And, therefore, we don't need a price on pollution. Sorry, I should have corrected that. You're right.

I am happy to correct that, Mr. Chair.

They had said that, because there are other options, we therefore don't need a price on pollution. I just want to give them an opportunity to respond to that.

**Ms. Isabelle Turcotte:** I would say that we'd welcome the opportunity to evaluate a climate plan that would not put forward carbon pricing, and see how, through modelling, it gets us to the same mitigation outcomes as a plan with carbon pricing would.

**Mr. Mike Bossio:** Have you not already indicated that the most economically viable plan, an efficient plan, is a price on pollution?

**Ms. Isabelle Turcotte:** I would evaluate the cost of the policy measures, as well. To my understanding, it's unlikely that this plan without carbon pricing would be less costly for Canadians than would one with carbon pricing.

**Mr. Mike Bossio:** Would you like to comment on that, Mr. Stewart?

**Mr. Keith Stewart:** Sure.

If you go through those delightfully written federal-provincial working group reports on mitigation and carbon pricing that were prepared in advance of the pan-Canadian framework, they actually do a good job of laying out things that carbon pricing does really well and things it doesn't, as well as things that regulations do well and the things carbon pricing doesn't. They each have things they do well.

I would also point out, not just in the PCF but also in Canada's long-term, low-emission strategy, which we submitted, that basically to reach our 2050 target, which is to get very low emissions, some of the things that don't seem to be the most cost-effective to get the first 10% of reductions are really important for getting the last 20% or 30%. These are things like requiring net-zero new buildings and having aggressive retrofit schemes. These complement each other, but when we're doing our policy, we have to think about not only what's going to get us to reductions in the next five years or even 12 years but also what's going to get us to zero carbon in the long term.

As you know, as Environment Canada's report states, things that help us get to a 30% reduction target, things like switching from coal to natural gas, can actually impede us from getting to that longer-term net zero. If you're looking at that net zero, you might say, “Let's leapfrog straight to renewables and not build a bunch of natural gas plants.” These are the kinds of policy options that are before us.

We have thoughtful treaties on how to do this. It's now a question of implementation. I think we're definitely going to need both. Carbon pricing does some things really well. It can raise revenues. It can help to do other things, but not everything.

● (1710)

**Mr. Mike Bossio:** Thank you, Mr. Stewart.

When I look at the plan we've put forward as a government—investing $1.3 billion in protected spaces, investing billions in transit, emissions reductions, methane, the elimination of coal, driving emission reductions, net zero for building codes, a price on pollution, investing in innovation and in clean-growth technologies—would you say that is a comprehensive plan, a great start towards meeting those targets?

**Mr. Keith Stewart:** I think it's a great base that can be built on. There's a bunch of things that I would add, as I was saying, on integrating climate tests into infrastructure decisions, to get that longer-term perspective on avoiding carbon lock-in, but yes. It clearly needs to be ratcheted up, but it's not a case of having to sweep it all away and start again. You have the basis. Implement that and then take those next steps.

**Mr. Mike Bossio:** Would you agree that it's the first time as a country we've actually had a comprehensive plan to work towards climate change?

**Mr. Keith Stewart:** We've had seven different national plans on climate. This one is the most serious, I would say.

**Mr. Mike Bossio:** Thank you.

**Mr. Keith Stewart:** I can even name all seven if you really want me to, but probably not.

**Mr. Mike Bossio:** No, that's quite all right.

Ms. Turcotte, would you like to comment on that?

**Ms. Isabelle Turcotte:** I think that answers the question.

Carbon pricing does things really well, and there's an embedded price on carbon in regulations as well. It's not free, even if you regulate.

**Mr. Mike Bossio:** There are a couple of things I want to go to, but I will say you've probably all seen this graph, the one that came out of Australia. They had a price on carbon for two years, and during that two-year period you see that their carbon emissions fell off dramatically. As soon as they eliminated that price on pollution, not only did their emissions reach the levels they were prior to carbon pricing, they actually shot up dramatically above the previous levels attained.

Would you like to comment on that, please?

**Ms. Isabelle Turcotte:** I might highlight that in addition to the price embedded in a regulation, a regulation doesn't provide industry with the flexibility to make investments on its own terms, to increase its energy efficiency and decrease its emissions and innovate, which is something that is offered through carbon pricing. Unfortunately, in Australia, policy certainty was lost and companies that had been making investments for a carbon-pricing environment lost out.

We have to avoid this in Canada. We need to provide policy certainty to Canadian businesses. I think that's what we're doing with today's announcement.

**The Chair:** Thank you.

Mr. Lake, you have six minutes.

**Hon. Mike Lake:** Thank you very much. That's an interesting point because that's the exact same criticism people make about the Liberal changes to pipeline policy. That lack of certainty investors have in Canada right now is causing us to have some real challenges in our economy, and a $20-billion deficit.

It's interesting how these conversations in this room, or in the House, tend to get very polarizing. We're in a political world, but the reality is that we all want to leave a better place for our kids and grandkids. I have a 19-year-old and a 22-year-old. Many of the members have children and we want to leave a better place from a fiscal standpoint, a social safety-net standpoint and an environmental standpoint.

Mr. Kennedy...is it?

Sorry, it's Keith, at Greenpeace.

● (1715)

**Mr. Keith Stewart:** Yes.

**Hon. Mike Lake:** I'm getting you confused with Kennedy Stewart, a former colleague here.

**Mr. Keith Stewart:** I'll take it as a compliment.

**Hon. Mike Lake:** You mentioned those seven different environmental plans. In question period every day the Liberals fire back and ask about our plan. Clearly, we're a year out from an election. We will have an environmental plan and I'm sure Canadians are looking forward to it and we'll have a debate around it.

To that end, I'm going to give notice of motion right now, if I could. We won't debate it, but I'll give notice of the following 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.

We can debate that in future weeks. I think it's important that, as we take a look at this conversation around carbon tax, the cornerstone of the framework, that as the committee is undertaking a study of this, as the carbon tax seems to be the most hotly debated topic in Canada right now and very timely today, the committee ought to engage in six specific meetings to have a conversation about carbon tax, or carbon pricing as some call it, and move forward on that.

I have one quick question, and then I'm going to give the last question to Mark Warawa.

Isabelle and Keith, right now are we on track to meet our Paris Agreement targets?

**Ms. Isabelle Turcotte:** As I mentioned, there is a 66-megatonne gap to meeting our current target, even if we implement the full set of the PCF measures. We have to do more.

**Mr. Keith Stewart:** I would add the gap is now larger, given the policy reversals in Ontario, which haven't been accounted for yet, but we're not currently on track. That target needs to be ratcheted up. That's part of the Paris Agreement. We all agreed to review those targets next year and increase them. We're in a race here to do this fast enough.

I totally agree with you. We all want to leave the best world for our kids. The problem on climate change is that we're trying to fit some change with a deadline. If you look at the 1.5° report, acting too slowly has huge consequences, which we're already feeling now, but our kids are going to feel that even more. I have a nine- and 13-year-old. There are days when I come home I don't want to talk to them about what I did at work because it's too sad.

**Hon. Mike Lake:** Me too.

**Mr. Keith Stewart:** But I do think every day about what I'm doing to try to make sure they inherit the best world possible. I know you guys are doing that too. The science is telling us we have to move so fast. It seems it's so fast that it can't possibly be true. We can't possibly be expected to do that, but we're being asked to do extraordinary things to transform our energy systems and change our economy to protect our livelihoods and to protect our ecosystems that we all depend on.

**Hon. Mike Lake:** Thank you very much.

I'm going to give the floor to Mark.

**Mr. Mark Warawa:** Keith and Isabelle, Keith touched on the leapfrogging to renewables. Moving water is the most important renewable energy source in Canada, providing approximately 60% of Canada's electricity generation. Canada is the second-largest producer of hydroelectricity in the world. I think both Greenpeace and Pembina are on record as opposing the B.C. Site C hydroelectric dam. Why did you oppose this when it is renewable and takes us from carbon-based to energy from hydroelectric?

**Ms. Isabelle Turcotte:** I can't comment as I've recently joined Pembina, and I'm not aware of their past conversations on this.

**Mr. Mark Warawa:** Okay.

Keith?

**Mr. Keith Stewart:** If you look at the World Commission on Dams, their report on hydro power that Greenpeace uses to guide our support or opposition to particular dams, it really depends on how it's done. Run of river is clearly the most environmentally friendly and can produce lots of power. The massive dams that create large reservoirs create greenhouse gas emissions of their own with the rotting of vegetation, etc. They also have all sorts of dislocations. Also, any project we do has to be consistent with Canada's commitment to reconciliation with indigenous people. It's that combination of factors.

Mega-dams have a bunch of other ecological problems. They don't provide the greenhouse gas benefit because of the problem that they produce greenhouse gas emissions as the ground that was there rots and turns into methane. Opposition from affected first nations is.... We say there are a lot of better opportunities in B.C. for doing renewable generation in a way that doesn't run into those problems.

● (1720)

**The Chair:** Thank you.

Mr. Stetski, you have three minutes.

**Mr. Wayne Stetski:** Thank you.

Going back to my earlier request, if you could send any papers to the committee that you think are particularly good on the practical switch from fossil fuels to green energy, that would be great. The challenge is that it should be 10 pages or under, so no Ph.D. dissertations, please. It has to be translated, so summarize it if you can. That would be very much appreciated.

Back to my question, what is the most important thing you could or would do if you were Minister of Agriculture and/or Environment?

Tyler, perhaps we can start with you.

**Mr. Tyler McCann:** If I were Minister of Environment I think the first thing I would want to do is celebrate the good work that our farmers are doing being environmental stewards. When you look at concrete policies, I think I would take from the pan-Canadian framework and move forward with a clean fuel standard. I think that's a good example of a type of policy that has a positive impact on carbon emission reductions, while supporting our domestic economy and encouraging clean economic growth.

**Mr. Wayne Stetski:** Please do pass on our thanks and appreciation to all the great farmers you represent.

Isabelle.

**Ms. Isabelle Turcotte:** The question was the one policy that I would use, and it's such a hard one because there are specific tools that do things really well. We have to push all levers. Although, I'm inclined to say getting off coal is paramount. If you do it successfully, it's hugely influential in the rest of the world. The bulk of emissions are happening in developing countries that need to stop using coal to meet their energy needs.

**Mr. Wayne Stetski:** Thank you.

**Mr. Mark Warawa:** If we could ask Pembina for their response on the Site C dam, I would appreciate that.

**The Chair:** You're requesting a written submission on Site C from Pembina.

As Mr. Stetski said, any of the witnesses are welcome to do a written brief with any further things you'd like us to consider in this study.

Thank you to our witnesses for being here today. Thanks to our guests on the committee today.

With that folks, the meeting is adjourned.