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Chair

Mr. John Aldag

Standing Committee on Environment and Sustainable Development

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● (1540)

[*English*]

The Chair (Mr. John Aldag (Cloverdale—Langley City, Lib.)): Good afternoon, everyone. Welcome to our final hearing that we have scheduled on clean growth and climate change in Canada, looking at forestry, agriculture and waste.

We're booked until five o'clock today with our panel.

I just want to make sure our guests via video conference can hear me all right.

Mr. Robert Coulter (Vice-President, First Carbon Credits Corporation): I can. Thank you.

The Chair: We'll get started with our opening statements right away. Each of our three presenters will have 10 minutes.

We'd like to have our video conference guests go first while we have them and the feed is working. First, we have Mr. Robert Coulter from First Carbon Credits Corporation.

Mr. Coulter, if you'd like to start, we'll give you 10 minutes.

Just so everybody knows, I use a card system here. Yellow means there's one minute left in your time. Red means your time's up, so just finish your thought. You don't have to stop dead, but wind it up

I would like to welcome Mr. Falk to the table.

Mr. Ted Falk (Provencher, CPC): Thank you.

The Chair: I don't think we have any other substitutes today.

Mr. Warawa.

Mr. Mark Warawa (Langley—Aldergrove, CPC): I have just a very quick question, as I don't want to delay anything.

The environment minister was invited to the committee. Is there any indication that she's going to be coming before this session of Parliament ends?

She was asked to speak to the supplementary estimates, which have already been reported back.

Is she going to be coming here and answering the questions of this committee?

The Chair: My expectation is that we will be inviting her.

Mr. Mark Warawa: We've already invited her, Mr. Chair.

Is she going to come?

The Chair: I would like to get into witness testimony, while we have the feed going. This isn't a point of order.

Mr. Mark Warawa: I didn't say it was a point of order, Mr. Chair.

The Chair: I realize that.

We'll see if it comes up with committee business that there's a desire to invite the minister.

Mr. Mark Warawa: It's an easy question. You acknowledged me. You've given me the floor to ask you that question.

Are you saying you don't know, Mr. Chair, or are you saying you won't answer the question?

The Chair: I'm saying I have nothing before me in the form of a motion or anything directing us to invite the minister for something.

Mr. Mark Warawa: The committee chair said that they were going to invite her. There was a subsequent motion that wasn't supported by Liberal members to meet at any time or any place. Before that, there was a motion that the committee invite the minister and that happened. The minister was invited.

The question is whether she is going to come at any time before this session ends.

The Chair: On that, the debate had been adjourned on that motion. It never came back, so we didn't invite the minister for this specific session because the motion wasn't resolved. That's where we're at.

Mr. Mark Warawa: Thank you.

The Chair: We'll go back to Mr. Coulter.

You have 10 minutes.

Mr. Robert Coulter: Thank you very much, Mr. Chairman.

I'd like to start off by thanking the committee for taking the time to hear me.

I'd like to acknowledge that I am on the traditional territory of the Songhees Nation here in Victoria, B.C. on a beautiful rainy day today, and that I am the son of a Sto:lo Nation father, Robert Coulter. My mother is Thelma Chalifoux, a Métis from Alberta.

Getting that out of the way, I'd like to start, first of all, by saying that the mission, as I understand it from the pan-Canadian framework, is to increase stored carbon and identify and enhance carbon sinks.

Of course I've had many experiences since 2000. I was initially working with first nations and Métis groups in northern Alberta as we identified different intensive livestock operations. It was there that I was first introduced to the idea of composting as a soil amendment and also as another revenue stream for potential livestock operations. That got me into this whole field of climate change, especially into carbon sequestration and the different methodologies we could use as we strive to develop a market-based approach to carbon sequestration in particular.

Having said that, I'd like to start off by defining what a carbon sink is. I am going back because there are many different interpretations of carbon sinks that I've run across. I have 10-plus years of experience of dealing with this issue, both on the Prairies and out here in B.C. as I went around negotiating with all the first nations on clean energy developments, especially around tidal energy.

A carbon sink is a natural or man-made reservoir that accumulates and stores carbon dioxide, like the ocean and of course the earth.

When I was meeting with farmers, I often told them that although we know carbon is absorbed from the air by the land anyway, by using best practices we can enhance that absorption even more. That is measurable, and we could measure that absorption and take that difference to the marketplace as a compliance offset. That was our strategy at the time as we were developing a market-based aggregation process with the farmers of Alberta.

That was our definition, and of course we also moved into the landfill area and land use change, talking to various landowners in both the forestry sector and the agricultural sector.

As an aggregator, in the company I founded and operated, we had about 1,100 farmers enrolled in our program. We were encouraging them to use best practices—no-till farming in particular—to effect a more meaningful change.

That was just a small portion of what we were doing, because we know that in Alberta in particular there were about 52 million acres, and I think in western Canada as a whole we had about 55 million hectares, or about 137 million acres of agricultural land. That land had the potential to become about 30% of the solution, as opposed to being measured at about 10% of the problem of CO2 emissions.

We also looked at methane capture on some of the intensive livestock operations, because of course methane is about 21 times more intense than carbon dioxide emissions.

Of course, there was the old issue of arable land, especially summer fallow, in particular, with nitrogen emissions about 210 times more intense than one tonne of carbon. There was a lot of incentive for us to look at agricultural emissions in particular, and to try to mitigate them by using enhanced practices.

● (1545)

I've put together a slide presentation, which apparently you'll be getting later on in the week once it has been translated.

I wanted to talk about one of the things that we really tried to encourage farmers to do, which was to maintain their crop residue and keep that on the land without touching it. Even though it could be used for feed, fuel, fibre or construction material, we wanted to encourage them to maintain it because the more organic matter that you have left on the field, the better water retention you have. More than that, we wanted to encourage them to do these best practices because they increase the coefficient of the land to absorb more carbon.

Of course, in our market-based approach, the coefficient was the money number. The higher your coefficient, the more dollars you generated from your land by aggregating the carbon offsets from it. This slide show you're going to get later talks about how conservation tillage increases the coefficient by 0.01 to 0.4.

There was a winter cover crop. We encouraged them to do a winter cover crop and increase their coefficient from 0.05 to 0.20. Soil fertility management, eliminating summer fallow, forage-based rotations, organic amendments and water table management all increased their coefficient, which meant there were more dollars in their pockets. We really tried to show the farmers that it was a win-win. As they incorporated these practices into their farming operations, it would increase their soil organic carbon and they would also have better water retention. We could also show that because of increased yields, they would have a better profit. Not only that, but they could add an additional revenue stream by selling their offsets to the large final emitters in Alberta under the rules of Ed Stelmach in 2007.

That was our main business model. They would make the assertion that they were following these practices. As aggregators, we would take on the role of validating and verifying their assertions, so that we could convert those raw offsets, as we call them—farm offsets—into a compliance offset suitable for sale to the large final emitters in Alberta under the Alberta system.

That was our methodology. Of course, it included the verification process using an agronomist. We had to make sure that they actually had the one-pass conservation system, they had the proper equipment and they had complied with all the elements of the contract we had with them.

Once we did that, we then had to serialize them under the CSA at first. Eventually we convinced the Alberta system to develop a serialization process to ensure that we had an accurate way of tracking the compliance offsets, particularly to ensure there was no gaming or double counting.

It was quite an eventful time between 2007 and 2009, in particular, as we developed that market-based approach to ensure that land use and land use change was documented, verified and converted to a compliance offset. Then, of course, we were able to sell them to some of the large final emitters on behalf of the farmers.

That was our methodology at the time as we worked through this. The value of soil carbon to the farmer is that the soil quality is enhanced. The value of soil carbon to society is that we reduce erosion and sedimentation of water bodies, and there's an improvement in water quality, biodegradation of pollutants and mitigation of climate change.

● (1550)

The common denominator between both forests and agriculture is that we maintain our precious resources.

Thank you very much, Mr. Chairman. I conclude these remarks.

The Chair: Thank you so much for those opening comments. There will be a chance for the members around the table to ask questions as we get into the session.

I'll turn now to Ms. Baldwin from the Agricultural Institute of Canada.

We'll turn it over to you, and you have 10 minutes for your opening statement.

Ms. Kristin Baldwin (Director, Stakeholder Relations, Agricultural Institute of Canada): Thank you, Mr. Chair.

Thank you for inviting us here to participate in the committee's study about clean growth, technology and climate change and their impact on various industries, including agriculture.

The Agricultural Institute of Canada was founded almost 100 years ago, in 1920, and is a unifying voice for cross-sectoral research and innovation in Canada. We advocate on behalf of agricultural research, disseminate information and create international linkages. To put it simply, the stakeholders we represent research, develop and innovate technologies and products for use in the agri-food sector. They know that Canada's agri-food sector holds significant potential for the development and use of clean technologies and bioproducts.

The innovations being developed today have the potential to revolutionize both the way we produce and cultivate products as well as the products themselves, whether they are making products that grow cleaner for fewer emissions and lower carbon footprints, developing techniques that improve how our producers cultivate the products, or making better use of the waste products generated. Canada's researchers are at the forefront of this industry and are world leaders. We are already seeing products that use fewer resources, emit less carbon, have higher crop yield and greater nutritional value.

With targeted and strategic support, the impact of these innovations can be felt on a greater scale. We believe that this presents an opportunity for federal leadership. A central part of this strategy begins with fostering collaboration between sectors. By encouraging and nurturing cross-sectoral partnerships, we will take great strides to find solutions to ongoing issues.

As an example, in the spring AIC will be hosting an agri-food innovation summit to promote collaboration between sectors, research clusters and governments. Participants from across various industries will gather to discuss future research plans and paths forward. The end goal is to find areas where research overlaps and applications can be shared between sectors as well as to identify what tools can be used to further support the research and adoption of these technologies. As an example, we will be bringing together representatives from the artificial intelligence and robotics sector, along with the agricultural sector, to find opportunities to use an existing knowledge base for action in another field.

We believe that the government has a role to play and hope that they will consider further supporting initiatives like this one and more going forward, including by supporting the development of carbon dioxide sponging systems in urban cities, comparable to what is done currently in the Netherlands, promoting indoor horticulture in urban designs and investing in systems to increase carbon dioxide use, including bioenergy and waste product utilization.

As is true with most technologies, being an early adopter is expensive, and the impact of delaying the use of green technologies merely exacerbates the use of older, less efficient and less environmentally friendly technologies. Key government support and incentives from the research stage to the adoption by the end-user are essential to broadening the use of these technologies. Creating a favourable climate for the adoption of clean technologies will help ensure that the desired effects are felt on a broader scale. This could be done through the taxation system such as with tax breaks, writeoffs or direct financial support.

A central element of the application of new technologies is often the same: access to broadband Internet. Without this basic building block, the impact of many of these new technologies cannot be felt as widely as their potential. This fall's Auditor General's report painted a disappointing picture of the state of Canada's connectivity in rural and remote areas. The federal government has taken some action on this, including setting up the federal-provincial-territorial connectivity committee and launching a public consultation on the topic. We encourage the government to move forward expediently and shift from the consultation stage to the implementation stage.

Adapting Canada's urban environment presents a unique opportunity for Canadian innovators and great potential for the development of carbon capture and storage capabilities. I know that this committee has previously conducted a study on this topic, so I won't go into too much detail, but if steps are taken today and leadership is shown, we can convert our built environment into carbon sequestration hubs and generate revenue while reducing our carbon dioxide.

● (1555)

This government has outlined an ambitious climate plan and has identified areas where further action is needed to help meet our emissions targets, including in our agricultural sector. Further to this, ministers of agriculture agreed to address priority areas as well as accelerate science, research and innovation in selected areas. We believe this is a step in the right direction but would like to see some further leadership from the federal government as it relates to the use of carbon tax revenue.

Recognizing the significant impact of clean technology in the agricultural sector and the environment as a whole, we recommend that a portion of these revenues be specifically earmarked for the introduction of new sources of energy as well as to support the production of biofuels. Through dedicated earmarked funding, this sector will get the support it needs to grow, and I'm sure that my colleague here will touch on that point as well.

Canada has already demonstrated global leadership in clean growth in the agricultural sector, notably in the development of alternative protein, which is the focus of the protein supercluster based out of Saskatchewan. Through the use of plant genomics and other techniques, the nutritional value of key crops such as pulses, wheat, canola and more will be increased. This in turn lowers the impact on the environment while increasing the products' appeal on a global market.

With strategic and targeted investments, innovations like these have the power to succeed. Coupling the ingenuity of Canadian researchers with government support will allow the agricultural sector to meet its potential while supporting clean growth and technologies.

Thank you very much for taking the initiative to address this important topic.

I look forward to your questions.

The Chair: That's excellent, thank you.

Now we'll go to Mr. Hooper with Advanced Biofuels Canada for his opening comments.

[*Translation*]

Mr. Doug Hooper (Director, Policy and Regulations, Advanced Biofuels Canada): Good afternoon, ladies and gentlemen.

[*English*]

Thank you for the opportunity to speak to the committee today. My name is Doug Hooper, and I am the director of policy and regulations for Advanced Biofuels Canada.

Advanced Biofuels Canada is the national voice for producers, distributors and technology developers of advanced biofuels in Canada. Our members are global leaders. They have built and operate plants on four continents, with the capacity to produce over 12 billion litres of advanced biofuels annually. Here in Canada, they currently operate seven biofuel facilities, with annual capacity of over 400 million litres. They are working hard to supply clean fuels and develop new refinery projects in Canada to meet increasing demand for low-carbon fuels.

Since 2005, ABFC has provided federal and provincial leadership on effective biofuel policies that expand low-carbon fuel options, achieve measurable climate action results, and stimulate new investments and clean growth. I am here today to speak to your analysis of how to generate more bioenergy and bioproducts, and to advance innovation in the forestry, agriculture and waste sectors.

Specifically, I will address the potential of advanced biofuels to reduce greenhouse gases in Canada, and describe how the Government of Canada can incentivize their production. I will conclude by defining some of the economic benefits, and describe a path forward. Before I speak to those issues, let me begin by introducing you to biofuels use in Canada today.

Canada's renewable fuel industry was born several decades ago, as farmers sought to improve farm gate revenues and reduce dependence on foreign exports by producing ethanol made from our corn and wheat crops. Over the last decade, refineries to produce low-carbon, advanced biofuels, such as biodiesel made from canola, soybean oil and animal fats, and cellulosic ethanol made from biomass and municipal wastes, were built in Canada to meet demand for clean fuels under federal and provincial regulations, such as the federal renewable fuels regulations, and various complementary provincial RFS regulations.

ln 2013, British Columbia pioneered Canada's first low-carbon fuel standard, called an LCFS, for transportation fuels. Canada's clean fuel standard is now under active development by ECCC to apply this proven regulatory approach to fuels used in transportation, industry and buildings.

The adoption of renewable fuels regulations and LCFS regulations has opened up market access for biofuels in Canada, and stimulated investment in new refining capacity. lt has also contributed to significant greenhouse gas reductions. From 2010 to 2016, biodiesel and renewable diesel use has grown from 160 million litres per year to 540 million litres. Over the same period, ethanol use expanded from 1.7 billion litres to 2.8 billion litres. Annual greenhouse gas reductions from the elimination of fossil fuels used in cars and trucks has gone from 1.8 million tonnes in 2010 to 4.1 million tonnes in 2016. These are remarkable achievements in a short period.

However, despite having a wealth of sustainable forestry, agricultural and waste resources, Canada has fallen short of its goal to meet our biofuels demand with Canadian-made biofuels.

ln 2016, we produced 1.6 billion litres of ethanol, but relied on 1.2 billion litres of U.S. imports to meet our domestic demand. ln addition, we produced 415 million litres of biodiesel, most of which was exported to the more lucrative U.S. markets, and we relied on imports of 240 million litres of U.S. biodiesel and 300 million litres of renewable diesel from Asia and Europe. Over 2017-18, this trade imbalance is growing, with expanding imports of ethanol, biodiesel and renewable diesel today.

Let me turn now to your first question—what is the potential for advanced biofuels to reduce greenhouse gases in Canada?

Under the clean fuel standard, we anticipate that clean fuels will replace liquid fossil fuels to deliver at least 20 million tonnes per year of greenhouse gas reductions by 2030. This is two-thirds of the targeted emission reductions under the CFS. These reductions will come largely from advanced biofuels that are commercially established today—biodiesel, renewable diesel, ethanol and advanced ethanol. Emerging technologies such as biocrude and carbon capture are in the pilot and demonstration stage. They will expand clean fuel supplies and enable the deeper reductions that are necessary to meet our 2050 targets.

● (1600)

Advanced biofuels will replace gasoline in cars and diesel fuels used in trucks, locomotives, ships, airplanes and heating. Liquid fossil fuels will also be replaced by expanded use of electric vehicles, renewable natural gas and renewable hydrogen.

To achieve these emission reductions, renewable distillate fuel use could expand sevenfold, and ethanol and other renewable gasoline fuels could expand threefold by 2030. This is not a moon shot, but it is ambitious. It will require a transformation of our fuel supply systems.

This transformation is not confined to Canada. It is a global market shift. Canada has extraordinary potential to expand production, use and export of advanced biofuels. We need to reset our vision. Given our forestry and agricultural resources and technological know-how, Canada has the ability to be a global leader in advanced biofuels and other clean fuels.

To get there, we recommend that we develop a clear, focused clean fuel growth plan. A clean fuel growth plan would have three core elements. First is the clean fuel standard. The CFS will establish clear climate targets, create market access and expand consumer options. Complementary measures, such as carbon and excise fuel taxes, fuel economy, emission standards and RFS/LCFS regulations, are the second component. Number three is competitive conditions, programs and tax policies that create the appropriate conditions to attract the necessary investment.

Together these pillars will align market signals and address market failures to enable advanced biofuels and other clean fuels to meet our domestic needs and open new export markets.

In November, we released our 2018 ABFC capital project survey data. Over the period 2018 to 2030, our members collectively identified 44 new advanced biofuels production projects and eight facility expansion projects. These projects require capital investments exceeding $6 billion. Twenty of the projects exceed $100 million in capex. A further nine of the projects are estimated to cost between $50 million and $100 million to construct.

The projects span a range of technological processes, renewable fuel products and bioproducts. You will receive a slide deck with a summary of these projects and the data describing them. By 2030, they represent over 600 million litres of renewable gasoline fuel production capacity, over 2.5 billion litres of renewable diesel and biodiesel capacity, and one billion litres of biocrude fuels that can be co-processed into a range of finished fuels including biojet and renewable marine fuels.

Importantly for your committee's consultations, these projects represent utilization of up to 2.1 million tonnes per year of vegetable oils and animal fats, and up to 3.5 million tonnes per year of forestry and agricultural biomass residues and wastes. This significantly reduces our dependence on export markets and adds value to our natural resources.

Earlier this year we released a study on the economic impact of expanded biofuels production in Canada. If Canada increased its biofuels production capacity to 11.9 billion litres per year, Doyletech Corporation estimated one-time direct and indirect construction impacts of over $9.5 billion and 45,000 jobs. Annual operations would increase economic output by over $18.5 billion and sustain over 12,000 full-time jobs.

To build capital-intensive projects, investors are seeking to minimize and manage risks and generate stable and predictable returns. Over the past 20 years of global biofuels build-out, there's been solid evidence that performance-based production credits are an effective tool to support capacity investments. Capital support for commercializing novel clean fuel production technologies and new clean fuel infrastructure assets is also necessary. As with all dynamic technology sectors, targeted measures to support ongoing innovation and research and development are a core component.

We are currently consulting our members on the specific measures to address whether Canada is competitive to attract the necessary investment. We are looking at the measures that were announced in the fall fiscal update. We welcomed those announcements. We're looking at the economic strategy table recommendations that were released earlier this fall, and we're evaluating the federal and provincial policies and programs that currently are targeted at clean growth more generally.

● (1605)

As I stated earlier, our members are global leaders. We'll inform our analysis and recommendations based on their feedback.

In summary, advanced biofuels are a key partner in Canada's climate action and clean growth plans. We thank you again for the opportunity to appear today, and I look forward to your questions.

[*Translation*]

Thank you again.

[*English*]

The Chair: Excellent. Thank you.

Now we're going to get into a series of six-minute interactions with individual members.

First up, we have Mr. Bossio.

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

Thank you all so much for being here today. They were outstanding presentations with a lot of information. My brain is reeling right now, trying to get it all in there and figure out how I want to frame some questions.

I'd like to start with Mr. Coulter, if I may.

Alberta set up a market-based system back in 2007 to drive the carbon sink model in agriculture, in a sense. I know that it was to drive down emissions and to use carbon sinks as a carbon offset, to offset the emissions that were being generated in other parts of the economy. It gave businesses the opportunity to do that.

Would you say that was the catalyst that has driven the carbon sink model that now exists in Alberta?

Mr. Robert Coulter: Yes, I tend to agree with that.

I've spent many hours, many evenings, going around talking to various farmers. I think I must have been at over 100 farmer meetings. Our model was very constituency based, so I wanted to get on the ground to talk directly to farmers and show them....

Of course, as you know, Alberta was not about more taxes. They wanted to know how a market-based system could benefit them and generate another revenue stream. The large final emitters that I was negotiating with also wanted to know how they could participate in this new market that Premier Ed Stelmach at the time had put together, but they wanted to mitigate their risk. That was their main concern.

We were the go-between, between the farmers who generated, like you said, an additional carbon sink because of their good practices, and the larger final emitters who wanted to have a compliance credit that they could take to the marketplace in exchange for their over-the-limit carbon emissions.

● (1610)

Mr. Mike Bossio: It's essentially a cap-and-trade system.

Mr. Robert Coulter: Yes.

Mr. Mike Bossio: By putting that market-based system in place, it incentivized incredible innovation in Alberta, which is now leading many parts of the country. It has changed the farming practices that are now happening in many parts of the country, whether they have a cap-and-trade system or not.

Alberta is the only province that actually has it, but that incentive created that innovation. Now they recognize that not only was it a carbon sink, but it's really good farming practice. It has created a level of productivity that was previously unheard of.

Mr. Robert Coulter: That's correct.

Also, I had a lot of talk with biofuel refineries, a lot of Hutterite colonies that wanted to get into biodigesters. There were a lot of different innovations that came up as a result of land use change, both in the agricultural and forestry sectors.

I spent a lot of time talking with first nations up in the Treaty 8 area, as well, about how they could participate and the ways that they could participate in the marketplace. There was exponential innovation that occurred as a result of what we started back in 2007.

Mr. Mike Bossio: If I heard you correctly, you said that it reduced erosion, increased water retention, which increased water quality in the area as well, and created a higher-quality product and higher levels of productivity overall.

Really, it's a very good story all around for the ag sector at the end of the day.

Mr. Robert Coulter: Yes. That's what we want to emphasize with farmers in particular, that not only would they get an additional revenue stream from the carbon trade, but they would also get increased productivity so that they'd have better yields.

That was proven out in a number of studies. It really was a win-win for everybody all around.

Mr. Mike Bossio: Thank you so much.

I'd like to go over now to the Agriculture Institute and the biofuels sector. You raised an interesting point when you talked about the fall fiscal update and the capital acceleration that is now happening on farm equipment, and I would assume on new capital infrastructure—any green energy technology—so that would affect the biofuels sector as well.

Also, you mentioned broadband technology. They've tripled the level of acceleration for broadband, and networking technology also.

Would you say that was a positive news story? How would you say that's now going to incentivize farmers and the biofuels sector? Do you think that's going to accelerate their plans for moving forward?

I'll start with Kristin, and then maybe, Mr. Hooper, you could comment as well, please.

Ms. Kristin Baldwin: Sure. Thank you.

We certainly support some of the measures from the fall economic update that you mentioned in your question. Speaking specifically to the incentivization point, we have to look at it both from incentivizing research and incentivizing the early adoption of those technologies. It's not one or the other. We need to do both to bridge the gap between the two. I think we're stepping in the right direction, but I think we need to step faster, if that's the proper analogy.

Mr. Mike Bossio: There is $1 billion going into agricultural innovation as well.

Ms. Kristin Baldwin: Yes, absolutely.

Mr. Mike Bossio: It's being invested in that research.

Mr. Hooper, do you have a final comment?

Mr. Doug Hooper: I think the three measures that are most important in the fall fiscal update are the accelerated capital cost allowance for manufacturing, and our understanding is that biofuel facilities qualify as manufacturing. That's a positive step. We're hoping provinces will step up with their piece to mirror that on the ACCA deduction. The clean energy definitions that are used in classes 43.1 and 43.2 are not necessarily going to create eligibility for biofuels, so we're looking more closely at that. The accelerated investment provision is of benefit. I think it goes up the whole value chain for us in terms of the supply.

● (1615)

Mr. Mike Bossio: Am I totally done?

The Chair: Yes, you are.

Mr. Mike Bossio: I have a bunch of other questions.

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

Mr. Mark Warawa: Thank you to the witnesses for being here.

I find this incredibly interesting and exciting from the many years that I was parliamentary secretary for environment under a previous government.

There's a lot of energy, a lot of focus, a lot of investment in partnering with stakeholders for us to move in this direction. We required a certain percentage, an increasing percentage of the fuel at gas stations to be renewable fuels, investing in cellulosic ethanol and biodiesel using our biomass, so it's exciting to see this growth.

Mr. Hooper, last week we heard from the canola growers that 70% of the world's supply of canola is grown in Canada, and we export 90% of it. From my reading, canola is a perfect candidate to be a biofuel for biodiesel. Is that correct?

Mr. Doug Hooper: Yes.

Mr. Mark Warawa: We can do much better using some of that canola oil instead of exporting it.

We also heard from the canola growers that they were very concerned about the government policies that could make us not competitive anymore. I asked what it was and they said the carbon tax. They also hinted that canola can be grown in other jurisdictions, like the United States. We need to use our technology, and you highlighted world leadership. They highlighted that too.

Ms. Baldwin, thank you for being here. On the carbon tax, the mandate of your association includes influencing public policy, promoting and facilitating careers in agricultural research, but I want to focus on influencing public policy.

If the agricultural industry is concerned about the carbon tax and the impact that it's having on that industry, and are talking about possibly relocating, which would be horrific, more job losses.... Their concern is that they've achieved far beyond the Paris targets—a 20% reduction by 2020. They've reduced their greenhouse footprint, their carbon output, beyond the 2030 target of 30%. They've cut it in half.

They've said the government uses carrots and sticks and what they're using right now is just a stick. Even those who have achieved the goal of reducing their footprint feel they should be exempt from the carbon tax. I think that's reasonable. We heard the same thing from the aviation industry: WestJet, Air Canada and others. They've reduced their carbon output far in excess of what's required by the Paris Agreement.

Do you think it's reasonable that the government keeps whacking with the stick even though you've achieved the target and gone far beyond? Would it be a reasonable policy that you can aim for, and if you achieve that should you then be exempt? It would encourage others to also reduce their carbon footprint. Do you think your association could support that as a policy?

Ms. Kristin Baldwin: I can certainly see merit in your proposal; however, our sector is supportive of using the revenue generated by the carbon tax to support our clean growth sector and specifically the agricultural component thereof. I'm not sure I can be fully supportive of the statement that you just made but thank you for the suggestion. I can certainly see merit in it.

Mr. Mark Warawa: Would your association support continuing a carbon tax even though you have reduced your carbon output?

Ms. Kristin Baldwin: We're supportive of the carbon tax so long as we're using the revenue to support the growth and development of our sector nationally.

Mr. Mark Warawa: This is a question for both of you.

In British Columbia the carbon tax is not revenue neutral. It's collected at $35 a tonne and on April 1 it goes up to $40 a tonne.

Do you know what that equates to for the Canadian taxpayer? When they get their carbon tax bill for the energy they use to heat their home, natural gas, do you know what percentage it is, not $35 a tonne going to $40 a tonne, but what it costs them? What percentage is it, 5%, 10%, or 15%? Do you have any idea?

● (1620)

Ms. Kristin Baldwin: I'm sorry. I do not.

Mr. Mark Warawa: It's 112%, and that's not reasonable.

Mr. Chair, there are some very important questions that we need to deal with. I would like to move now to the motion that was before this committee. I have time to introduce the motion and then I would like to speak to the motion.

I'd like to make a motion to resume the debate that was adjourned on November 22. That motion was:

> That,
>
> (a) the Minister of Environment and Climate Change appear before the Committee to discuss the Committee's study of Clean Growth and Climate Change in Canada: Forestry, Agriculture and Waste; and,
>
> (b) in the event the Minister appears before the Committee with regard to Supplementary Estimates (A), 2018-19, the request in (a) be considered to have been fulfilled.

I am moving to resume debate on that motion and I'd like to speak to it.

The Chair: To resume debate is a dilatory motion so there is no debate.

We'll go straight to a vote.

Mr. Mark Warawa: It will be a recorded vote then.

The Chair: Okay.

I will turn it over to the clerk.

The question is to resume debate on the motion.

Mr. Mark Warawa: As a point of order, could I find out, through you to the clerk, what the clause is in Bosc and Gagnon that says a motion to resume debate is a dilatory motion?

The Chair: There are no clauses in Bosc and Gagnon, but we can find—

Mr. Mark Warawa: Where in the policy manual does it list that it's a dilatory motion?

I'm not debating, Mr. Chair. I am asking a point of order question.

The Chair: The clarification I've been given is that we can provide you with that reference. The ruling is that it's a dilatory motion. We're going to a recorded vote as you had requested.

I'll turn it over to the clerk for the—

Ms. Julie Dzerowicz (Davenport, Lib.): What's the question?

The Chair: It's to resume debate.

Ms. Julie Dzerowicz: On Mr. Lake's—

Mr. Mark Warawa: On the motion to invite the minister to speak to us.

The Chair: The motion that debate had been adjourned on, that is now being proposed to come back, says specifically: that:

> That,
>
> (a) the Minister of Environment and Climate Change appear before the Committee to discuss the Committee's study of Clean Growth and Climate Change in Canada: Forestry, Agriculture and Waste; and,
>
> (b) in the event the Minister appears before the Committee with regard to Supplementary Estimates (A), 2018-19, the request in (a) be considered to have been fulfilled.

The vote to be taken is to move back to resume debate on that motion.

Mr. Darren Fisher (Dartmouth—Cole Harbour, Lib.): I have a point of order. Does that then extend the study because the study ends today?

The Chair: The committee would have to decide if we were then going to extend the study.

(Motion negatived: nays 6; yeas 3)

The Chair: With that we'll return to our business.

We go to Mr. Stetski for his six minutes of time.

Mr. Wayne Stetski (Kootenay—Columbia, NDP): Thank you. I really wanted my opportunity to question.

I'm going to start with Mr. Coulter, if I might.

I'm curious. Can you give us some examples of where money has actually ended up in the pockets of farmers as a result of credits, I guess, for carbon?

● (1625)

Mr. Robert Coulter: As aggregators, we were the largest aggregator in 2007. In the 18 months following the announcement by Premier Stelmach and his Conservative government to implement that cap and trade program, we generated $5 million in revenue, $3 million of which was disbursed back to the farmers. We handled that disbursement through a cheque requisition company, third party, as demanded by the large final emitters. That was all verified and it was audited.

There was significant revenue, especially for the Hutterites. They loved us. Their average size of farming operation out there in Alberta is about 10,000 acres, so they got significant five-figure cheques because, of course, Alberta at the time allowed credits to be measured and counted in the past, so from 2002 to 2007 we were able to aggregate their offsets and then quantify them, convert them to compliance and sell them to the large final emitters. Of course, that generated additional revenue to them. It was a significant revenue right back into the hands of the farmers.

Mr. Wayne Stetski: Can you give me just a couple of examples? I'm trying to encourage other farmers to take advantage of this. What were some of the things that the farmers did to get a cheque?

Mr. Robert Coulter: All they had to do was sign a contract with us as their agent aggregator, and then we took care of the aggregation process. As long as they were following the best practices of agriculture like the one-pass.... No-till in particular was a main plank of that policy. If they were doing the one-pass system and they were leaving their crop residue on the field, not baling it or burning it.... There were a few basic things. If we could verify that practice, then they would get the money.

One farmer said, "Even if this buys my children a new set of shoes, it's a bonus for me." I got lots of those kinds of comments from people who got $50 to people who got five figures.

Mr. Wayne Stetski: Thank you.

Mr. Hooper, you talked about transition heading into the future, where it's moving away from oil and moving into more biofuels. We often talk about this transition, that ultimately it's a necessary transition to move to more green energy, at least a number of us talk about that.

Have you looked at a time frame in terms of when that might make sense and how we would actually go about that transition? I was watching a CBC panel the other day and one of the panellists said, I thought very bravely, that people need to know that oil is not the future, that the future is different from the past, so we need to start thinking of a different kind of future.

Do you have any kind of idea around time frame? You mentioned 2030 a couple of times. Is that when we should be producing more biofuels than oil on our various pieces of equipment?

Mr. Doug Hooper: There's a lot of data on the timelines and the different technologies to replace our fossil fuel dependence. Most of the studies are looking in the 2040 to 2050 period to achieve the 80% reductions, in that timeline. B.C. just released a CleanBC policy document last week. They're going to mandate a percentage of zero-emission vehicles by 2025, by 2030 and then by 2040 when there will be 100% zero-emission vehicles. That is going to substantially eliminate the internal combustion engine, so that's a gasoline-powered platform.

On the distillate side, we're going to be more dependent on diesel fuels and low-carbon fuels like advanced biofuels, renewable diesel, etc., because those platforms are not as easily electrified or switched to hydrogen. Ships, locomotives and airplanes will use renewable fuels and distillate fuels a little longer.

Mr. Wayne Stetski: We're looking at 80% green fuels, let's call them, by...?

Mr. Doug Hooper: That's 80% GHG reductions by 2050. To get there, really, the transition is going to be at 2030, 2040, in terms of diminishing our dependence on fossil fuels.

Mr. Wayne Stetski: I met with the renewable fuels group about a week ago, and they seemed to indicate that a price on pollution—some would call it a carbon tax—could be a carrot for innovation rather than a stick. Would you like to speak to that?

● (1630)

Mr. Doug Hooper: If you're buying fuels and the carbon tax is designed properly, lower-carbon fuels should pay less tax. That's a carrot.

We are on the same side as other trade-exposed industrial facilities in that we're concerned about our competitiveness. If there's a carbon tax applied to our energy inputs that makes us uncompetitive in Canada, we need to address that and the output-based system design. We've done a lot of work with provincial and federal governments on pricing facility emissions.

Mr. Wayne Stetski: Thank you.

The Chair: Ms. Dzerowicz, you're next.

Ms. Julie Dzerowicz: Thank you so much.

Thanks to all three presenters for their excellent presentations.

I'm going to start off with Ms. Baldwin.

I want to acknowledge that you mentioned there's a lack of access to broadband technology, and I think it's an important thing to note. I wouldn't mind if you could spend just a tiny bit, just because I don't have a lot of time.... Could you give me an example of a technology that we are sort of hindering farmers or agricultural workers from accessing that would be helpful for them in terms of reducing emissions? Could you just give us an example?

Ms. Kristin Baldwin: Of course. Take, for example, precision agriculture. You have farmers who are using technology like drones and low-orbit satellites to monitor their crop fields and to identify where they need a specific kind of fertilizer, where they need to harvest a week earlier, or where they need to apply water. Without broadband Internet and being able to connect all those dots, they're just going to continue using traditional farming techniques. If they had access to broadband Internet, then they would be able to use technology like precision agriculture.

Ms. Julie Dzerowicz: What percentage would you say? This is a ballpark percentage—I'm not going to hold you to it—but would you say that about 50% don't have access to it? Would you say 80% or 20%? Give me a ballpark percentage.

Ms. Kristin Baldwin: I can't answer that directly. However, we do have stats that say that less than 50% of farmers have adopted technology on the farms. That might not be specifically related to broadband or to other things like that.

I think that in the infographic that was provided in our brief, there's some further information on that. I think it's on page 11 or page 10.

Ms. Julie Dzerowicz: Thank you. I appreciate that.

I also very much appreciate your response to Mr. Warawa's question around a stick and that there are carrots around the carbon-pricing proposal that our government is talking about.

You've talked about how a carbon price is good if the revenue can be used to support the growth of the sector nationally. Can you maybe talk about how some of that revenue...? Can you give me some examples of how possibly those revenues can be used?

Ms. Kristin Baldwin: Sure. If we identify a specific percentage of the carbon tax.... This would be something that the policy-makers would have to determine, but for an industry such as biofuels—again, I'm going to use biofuels as an example here—if we delineated specific funds tied to the carbon tax that could be used to support that industry, it would undoubtedly grow.

I'm not sure if Mr. Hooper wants to add to that point.

Ms. Julie Dzerowicz: You're saying that you could use some of those revenues to actually grow the biofuels sector and that this would be helpful.

Ms. Kristin Baldwin: That's just one example of a sector that could be supported.

Ms. Julie Dzerowicz: Maybe I'll move over to Mr. Hooper.

I was part of the Ontario government a long time ago, in my youth, and I remember our talking about increasing ethanol in our fuels. I remember there being some concerns from a number of people that if we have more ethanol, we're using more land for corn. If more land is used for corn, there's less land for food, and if there's less turnover of land, it's bad for the land. There are all these kinds of side effects. It's kind of this cycle. I remember that as an argument. This is from over 10 years ago.

I wonder whether we've actually addressed some of those issues as we're trying to advocate for more advanced biofuels as part of the solution to actually reducing our overall carbon emissions. Can you maybe talk to that?

Mr. Doug Hooper: Yes. There are two primary aspects that are being analyzed to address sustainability. One is the life-cycle carbon intensity. All fuels are compared across their full life cycle. Whether you're pumping oil out of the ground or growing crops or using forest residues, the systems are assessed from production all the way through to end use and then compared. That's given the metrics of all the energy and emissions related to the process.

Regarding sustainability, on the forestry side, we have forest certification standards, where Canada is a leader. I believe you heard from FPAC on that. We've done very well. Our agricultural systems are also very sustainable. They're not as advanced as certification systems. I believe you heard from the round table for sustainable crops. They can articulate the status of their work.

On biofuels, quite often we see measures like renewable biomass defined, so that we eliminate the use of high-risk biofuels. We're not cutting down rainforests. We're not harming peat-based lands. We're not filling in wetlands with high conservation value and things like that and expanding the use of agriculture into those areas.

Particular to Canada, our total agricultural land is in a slight decline. Over time, what we've been able to do with precision agriculture and better agronomics, like low-till and zero-till farming, is produce more from the same land base. That more goes into food, animal feed and industrial products, as well as energy products. Our systems are well measured and able to meet a certain amount of growth, in order to supply these low-carbon needs.

● (1635)

Ms. Julie Dzerowicz: Just remind me, but it's my sense that most of the corn to produce ethanol is actually grown in Saskatchewan and Alberta.

Mr. Doug Hooper: No. The corn is primarily grown in Ontario, with a little bit in Quebec. The ethanol in the Prairies is made primarily from wheat, but it can sometimes pull some corn into it.

Ms. Julie Dzerowicz: Thank you.

The Chair: Sorry, Julie, but that's the end of the six minutes.

Ms. Julie Dzerowicz: That's it. Sorry I didn't get a question to the FCCC.

Thank you.

The Chair: Now we go over to Monsieur Godin.

[*Translation*]

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

Based on the testimony we have heard today and at other meetings, we can see that people on the ground are taking charge and launching initiatives to reduce our environmental footprint.

My first question is for you, Ms. Baldwin.

Unfortunately, since I had to go out I couldn't hear your remarks, but you talked about broadband in your responses, which I found interesting.

Given that there are several farmers in my riding, last-mile local broadband access, as it is known in this wonderful broadband world, is very important.

I would like to inform you that the Auditor General recently tabled a report indicating that the current government had committed money to invest, develop and implement the broadband system. However, the Auditor General also told us that the money stayed on the shelf because no programs were ever put in place. I therefore believe the funding is available. Considering the size of the deficits created by this government over the past three years, I'm not so sure a carbon tax is the solution.

You earlier replied to one of my colleagues that you supported the carbon tax on condition that it would be used for farmers.

I would like to hear what you have to say on this because, of course, there is the money, but, as we all know, when a tax is added, it is often not used for the primary purpose it was created for.

I would like to know what you have to say about that, Ms. Baldwin.

[*English*]

Ms. Kristin Baldwin: Thank you very much for your question.

You're right. The Auditor General's report did paint a disappointing picture of the state of Canada's connectivity in rural and remote areas. We recognize that the government has taken some action on this. There was an FPT that was set up and they had launched a public consultation. However, the reality is that we need to see this moving from the consultation stage to the implementation stage, so that we can see farmers in your riding—the last mile, as you referred to it—actually being able to use some of these technologies that can help them meet their emissions targets.

Does that answer your question?

[*Translation*]

Mr. Joël Godin: I don't agree with you. A carbon tax is not the solution. Four and a half billion was spent to buy an already built pipeline. Maybe this money could have been invested. Furthermore, there is money available in the government's budget program. It's a matter of will.

From what I understand, you need money to meet very specific objectives and needs, but you're suggesting the carbon tax is the way to go. I don't see why you would be suggesting this to the government.

● (1640)

[*English*]

Ms. Kristin Baldwin: Thank you again for the question.

We're supportive of the carbon tax, in terms of being able to use that carbon tax revenue to support the growth of clean technologies for use in the agricultural sector. Maybe the comments were taken a bit out of context by some of your colleagues. I'm certainly happy to follow up off-line, if there's a further conversation to be had on that topic.

[*Translation*]

Mr. Joël Godin: Thank you.

My next question is for Mr. Coulter.

Mr. Coulter, I would like to know how your business model works. If I understand correctly, your agency makes agreements with farmers. You manage their land and sell credits to businesses whose environmental footprint exceeds acceptability levels. Is this correct?

[*English*]

Mr. Robert Coulter: That's correct.

[*Translation*]

Mr. Joël Godin: Okay.

Let's say I have a polluting company that is not compliant and doesn't toe the line, if I may use that expression. If I want to buy credits, I call you and you let me know how many credits I need.

How do you estimate the value of that and how much goes to the farmer?

[*English*]

Mr. Robert Coulter: We work off an 80:20 formula, so we retained 20% for our administrative costs and 80% went to the farmer. Ultimately, the credit accrues back to the land, so the owners of the credit are the landowners themselves. Therefore, because they are the owners, they get the majority of the revenue. That's how we worked our business model.

They asserted to us that their practice was in accordance with the government regulations around the protocol. Then we had to verify and validate their assertion to us, and ensure that our customer, the large final emitter, was satisfied that the offsets we offered to them would be acceptable by the government, as a true-up compliance offset that they could use for compliance purposes to satisfy their obligation to the government under the cap-and-trade program.

[*Translation*]

Mr. Joël Godin: Thank you. I see I've run out of time. I will just add that I was pleased to hear that you had 30% of the solution rather than 10% of the time. I find that inspiring. It is possible to be even more environmentally responsible. Thank you.

[*English*]

The Chair: Thanks.

[*Translation*]

Mr. Robert Coulter: Thank you very much.

[*English*]

The Chair: Mr. Fisher.

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

Thanks, folks, very much for being here.

I want to go to Mr. Hooper, if I could. I'm fascinated by the advanced biofuels and the potential behind some of the things in your opening remarks.

You talked about the 20-million tonne reduction. I'm interested in whether you could roll out what you envision as a time frame for this becoming mainstream.

Mr. Doug Hooper: The first step is the clean fuel standard, which, under its current development process, will implement a regulation on liquid fuels in 2022, and set a requirement to go out to 2030 to reduce the carbon intensity of the fuels used. In a regulatory design paper, which will be released before Christmas, the government will identify what percentage of that 30-million tonne total target is allocated to liquid fuels. The remainder will be to gaseous and solid fuels, and those regulations are to be implemented in 2023, a year later. That's the timeline for the build-out.

In terms of the timeline of the commercialization, or the production of these fuels in Canada, we already have, as I mentioned, an installed base. Most projects take about three to five years to permit, finance, construct and then commission. Most of the fuels in our capital project survey are likely to be moved into the market by 2025, so they will be available to be utilized within that regulatory timeline.

● (1645)

Mr. Darren Fisher: Is that 20 million tonnes reduction in 2030?

Mr. Doug Hooper: That's 2030, and that's per year in 2030.

Mr. Darren Fisher: Wow.

I guess I'm asking you an editorial question. With a price on pollution, plus an investment in innovation, plus advanced biofuels, we will hit our Paris targets quite easily.

Mr. Doug Hooper: Yes.

Mr. Darren Fisher: Thank you.

Kristin, at the beginning of your testimony you had so much to say. You spoke so quickly that I would start to write something down, but then you'd be on to something else.

Ms. Kristin Baldwin: I do apologize.

Mr. Darren Fisher: I got development and use of new products, revolutionize, cultivate, grow cleaner, better use of waste, connectivity, innovation, new technologies, more nutrients, greater yields—all of the great things that I wanted to hear you say. Then you slowed down and you talked about sponging, horticulture and waste utilization.

I want to know if you could extrapolate a bit on sponging because I don't know what that is, and maybe a little on some of the great buzzwords that you used there. You're speaking to all of the members here, who find that fascinating. You lost me a little bit there, until you came to sponging, horticulture and waste utilization.

I came from the municipal side. We talked about waste to energy, but everybody had a different type of waste to energy. Everybody liked to argue about which one was the best technology. Do you find that's the case in some of these things that you're talking about?

Ms. Kristin Baldwin: Certainly. I think that's one of the struggles of being an industry association. There is that conflict between the researchers and the stakeholders that we represent.

I'm doing it again. I'm speaking very quickly again. I do apologize.

Mr. Darren Fisher: I have only five minutes, so go ahead. You can talk fast.

Ms. Kristin Baldwin: In terms of carbon dioxide sponging, we had heard from some of the stakeholders we represent who compared it to the system that's currently in place in the Netherlands, where they feed the carbon dioxide generated in urban communities to agricultural carbon sinks, agricultural fields, as well as into their greenhouse sector. As we know, the greenhouse sector is growing, even in Canada. I think it's now worth $2.5 billion, or something like that. There are some great examples of greenhouse innovation, even here in the Niagara region. That was cited as a place Canada could look to in order to solve some of the carbon problems it's having.

Does that answer your question, or did I speak too quickly again?

Mr. Darren Fisher: It does. No, that was great.

The new sources of energy.... You said, with regard to further action by government, that you acknowledge that the government is doing a lot, but that there needs to be further action by the government. Then I didn't get much more than new sources of energy and waste to energy.

Ms. Kristin Baldwin: Let me take a step back for a second.

If we're looking at this sector, there's an opportunity to seize our opportunity versus becoming a victim of the challenges associated with it. If we can make the opportunities grow and the challenges sink, and bridge the gap between them, then I think we're going to be out far ahead. I think there are opportunities for our government to support things both on the research side and on the early adoption side to feed it through the value chain.

Mr. Darren Fisher: I'm totally in sync with what you're saying.

What's the greatest challenge and greatest opportunity?

Ms. Kristin Baldwin: That's a hard one.

Climate change is both of them, to be honest. Then as a result, it's carbon pricing. It's a challenge. It's an opportunity. Let's bridge the gap.

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

The Chair: I'm going to jump over to Monsieur Godin.

[*Translation*]

Mr. Joël Godin: Thank you, Mr. Chair.

I will be sharing my time with my colleague, Mr. Warawa. Could you let me know when I get to three minutes, please?

My questions are for the witness I didn't have the opportunity to address earlier.

Mr. Hooper, to what extent can biofuels significantly contribute to reducing greenhouse gas emissions? Could you tell me what impact your industry could have?

[*English*]

Mr. Doug Hooper: Sorry, could you clarify for me if it is the value of biofuels on industrial emissions? I didn't catch the context for the question.

● (1650)

[*Translation*]

Mr. Joël Godin: What impact could the biofuel industry have on reducing greenhouse gases in the coming years? Would this be a major or minor impact? Is this an important action with results that would make your industry stand out?

Mr. Doug Hooper: I understand, thank you.

[*English*]

Biofuels used in transportation and some of the heating uses like heating oil, etc., are the single-largest plank of the climate action strategy. The clean fuel standard is, I think, the most significant measure under development right now under the pan-Canadian framework. Under the CleanBC plan announced last week, the low-carbon fuel standard was the single-greatest measure towards the 18.9 million tonnes of reductions there.

After we eliminate coal-fired power from the electricity grid, the emissions we have to tackle are those related to gasoline, diesel and natural gas.

[*Translation*]

Mr. Joël Godin: Thank you.

Why is there still some reluctance? Why isn't the biofuel industry more ahead? You said earlier that you are world leaders, but you don't have much of a presence. What is blocking your industry's development?

[*English*]

Mr. Doug Hooper: I don't know if there's reluctance, sir. I think there's great desire.

The challenge has been that the tools and instruments that were deployed in Canada were not as competitive as they are in other markets. The United States has a national renewable fuel standard with credits that are fungible and tradeable.

[*Translation*]

Mr. Joël Godin: This will be my last question.

Is Canada successful in attracting foreign investment for biofuels?

[*English*]

Mr. Doug Hooper: Yes. As I described in my comments, we have over $6 billion of capital projects within our membership. That interest has been growing over the last number of years. It's primarily because of the clean fuel standard. How we price carbon, whether we price it that way or that way, is going to make a difference, but the key thing is the clean fuel standard and the compliance credit market.

[*Translation*]

Mr. Joël Godin: Thank you. I will yield the floor to my colleague. We can continue this discussion later.

[*English*]

Mr. Mark Warawa: Thank you.

I started asking questions about the canola growers. That association has far exceeded the Paris targets of 30%—a 50% reduction from 2005 levels. They would like to be exempt.

Both associations, all the witnesses, indicated that they support a carbon tax. I don't think it's unconditional, but my question is that the canola growers are saying the tax is making them uncompetitive, and they are considering relocating. Do you not support their being exempt, both the canola growers and the aviation industry. Is that right? You support the carbon tax being charged on them.

Mr. Doug Hooper: No. To clarify, on industrial facilities, so this would be canola crushers and rendering plants, and it also includes biofuel production facilities, we support measures, whatever the pricing system is, whether it's a performance-based standard like the former SGER program in Alberta or output-based systems or cap-and-trade systems.

We need to be very careful, for our energy-intense and trade-exposed industries, including ours, that we don't make it uncompetitive to conduct this industrial activity in Canada.

Mr. Mark Warawa: I'm sorry, my time is clicking.

Do you support an exemption or not?

Mr. Doug Hooper: Yes. We support an exemption and an appropriate design structure for industrial facilities to maintain competitiveness.

Mr. Mark Warawa: Chair, I just have a moment left. I really feel it's important that we have the minister here.

I'd like to give a notice of motion. I request that the Minister of Environment and Climate Change appear before this committee to discuss the funds that the Parliament approved in December 2018 as part of the supplementary estimates, and that she appear, with her deputy minister, for no less than one hour, as soon as possible.

Because it's a notice of motion, there's a 48-hour requirement, but I would seek unanimous consent to deal with that now.

● (1655)

The Chair: Does the member have unanimous consent?

Some hon. members: No.

Mr. Mark Warawa: Thank you.

The Chair: With that, we're out of time on that one.

We go over to Mr. Amos. We have five minutes.

Mr. William Amos (Pontiac, Lib.): Thank you, Chair, and thank you to all of our witnesses.

I want to focus my questions to you mainly, Mr. Hooper, because I'm interested in getting your assessment of how the process of getting to a clean fuel standard has unfolded so far. As someone who is not an expert in the different fuels and the different competitions between fuel types, I think it's really hard for the average politician and the average Canadian to understand the public policy merits and the different choices that are involved in developing this.

Obviously you represent a particular institution, but if you are able to unpack that for us, I think it would be helpful as we look at that issue and potentially make recommendations in the course of this study.

Mr. Doug Hooper: I'll give a brief overview of the process to here. The clean fuel standard was announced by the government just in front of the pan-Canadian framework announcement in November of 2016. We're just over two years in. It took a while for the process to be established in terms of the stakeholder engagement, but we're now well into it.

Environment and Climate Change Canada has been conducting a detailed examination of design options and issues with stakeholders across all sectors. They're liquid, gaseous and solid fuels, but the sectors impacted are transportation, industry and buildings, so there are quite a number of folks represented in technical working groups when we're going through that process.

On the opportunity side, I think the constituents are always frustrated by the pace. We would like it to go faster, but I think the department staff at Climate Change Canada are doing a good job in going through the process development.

To the previous conversation in terms of the opportunity and the timelines, Canada, through the clean fuel standard, will have the regulatory platform on which to have competitive markets. That's why capital is interested in investing in assets in Canada. It is largely dependent on the design of the clean fuel standard. We need to get that right. That then will give us a market-based system that allows competitors to select low-carbon options. It will also give us a performance-based system that is measuring life-cycle carbon intensity of product A versus product B.

The good news about the sustainable forestry and agricultural products in Canada is that they're very low-carbon products and they're renewable, and we can certify them to meet globally accepted standards. We can meet our own needs and we can develop an export market opportunity as well. We can expand the value-added activity here in Canada.

Mr. William Amos: What would you say are the thorniest two or three issues in the context of finalizing those discussions in the technical groups?

Mr. Doug Hooper: Right within the meat of the regulation it's really a debate between what is the role of liquid fuels compared to gaseous and solids, so the allocation of the 30 million tonnes is a key issue.

There are quite a number of design features, but outside of the regulation itself, I think, this issue of carbon pricing is one that I really encourage the parties in the governments of Canada and the provinces to wrestle to the ground. The political risk that is associated with policy reversal, policy delay or policy implementation cannot be underestimated. It is negatively impacting the deployment of capital to build clean fuel assets and to lower the carbon emissions from existing assets, so it is one that—

Mr. William Amos: Just to clarify, then, are you saying that the suggestion across the board by Her Majesty's loyal opposition that pollution pricing is a job-killing tax on everything and the threat of a reversal in the future is actually doing the Canadian economy harm?

● (1700)

Mr. Doug Hooper: Yes. The debate over a carbon tax on both sides is stalling investment decisions, because capital projects are hundreds of millions of dollars and you can't deploy capital in a dynamic risk environment. It needs to be resolved.

Mr. William Amos: I'd like to ask Ms. Baldwin one question, very quickly.

We rural members of Parliament often advocate for more significant investments in broadband Internet infrastructure. I'm going to do this day in and day out as an MP. What kind of impact do you think that even more investments in rural Internet could have on the issue of addressing our climate change challenges?

Ms. Kristin Baldwin: Considering that the use of broadband opens up a significant breadth of agricultural technology, it's almost exponential. If you have broadband, it allows farmers to use significantly more environmentally friendly technologies. It's just a matter of getting the rubber to hit the road a little bit.

I don't want the giant cane to come get me so that's it.

The Chair: We are at five o'clock and I know that is how long we had asked our witnesses to stay. We have one three-minute round of questions left with Mr. Stetski, so if the witnesses are willing to give three additional minutes, I would like Mr. Stetski to get his final round, and then we will go into our closed session after. I've spoken with the analysts and the clerk and we believe that we can do what we need to do with committee business in the time we'll still have left.

Mr. Stetski, I'll turn it over to you for your three minutes.

Mr. Wayne Stetski: Thank you, Chair. I really appreciate that.

A few years ago, I was mayor of Cranbrook. We had a friendly city relationship with Wonju, a city in South Korea. We went over for a visit and I was amazed at what they're doing with agriculture. The ditches alongside the roads were full of crops. Every vacant lot in a city of 300,000 people was covered in vegetable gardens, and there was an experimental farm right outside there where they looked at what crops would grow, etc.

I was really excited but really depressed when I came back to Canada because of what I saw as the lack of real support from government for agriculture in Canada. We had been closing the research farms, etc.

I want to ask you, Ms. Baldwin, what are some of the things that the federal government should be doing to really help agriculture move forward and ultimately to reduce GHGs as a result?

Ms. Kristin Baldwin: I think the single most important thing that the government could do would be to increase its support for science and innovation, and perhaps look at it from a whole-of-government approach. We're fortunate enough to have a number of government departments that support science and innovation. There's Agri-Food Canada, Environment Canada, Innovation and Science. Investing strategically in certain areas to help the technology move forward would perhaps be useful, but it's also important to incentivize the adoption by the end-user, because it's great to have these technologies but if they're not actually being used, then they're not actually having an impact.

Does that answer your question?

Mr. Wayne Stetski: I think so, yes.

I have a quick question for Mr. Coulter, if I might.

I used to work down in the Lower Mainland with provincial parks, and I worked with a fellow by the name of Ed Kelly, who I believe was from the Sto:lo Nation. I'm just wondering, do you know Ed? Is he still with us?

Mr. Robert Coulter: I don't. I had some meetings down there on an energy efficiency project that we were doing, but I didn't run across him in the early days of climate change.

Yes, many of us are still around. What are we still doing? That's the issue.

The Chair: Thank you, Mr. Stetski.

Mr. Wayne Stetski: All right. Thank you.

The Chair: With that, I would like to thank the three witnesses today for the excellent testimony that you've given us, and with that we're going to suspend the meeting for a few minutes. We'll clear the room, keep the members back here and go into a closed meeting in a minute.

[*Proceedings continue in camera*]