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Standing Committee on Environment and Sustainable Development

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• (1100)

[English]

The Chair (Shannon Miedema (Halifax, Lib.)): Good morning, everybody.

Welcome to the meeting number 35 of the Standing Committee on Environment and Sustainable Development.

Before we begin with our witnesses, who are all online for the first hour this morning, I have a little bit of committee business. The committee will not be meeting on Tuesday afternoon next week, because the spring economic statement is being presented in the House. Our meeting is cancelled on Tuesday, which means that we'll likely be doing the freshwater work on Thursday.

We're still working to get confirmation from the MPO with Dawn Farrell's appearance. The clerk has been shuffling it around. We should get it all sorted out for the following week, but that is still to be determined. We'll send that by email, when we actually have it done.

I need approval for four expenses for studies.

The first one is regarding the study on Canada's strategy to protect nature. The amount is \$750.

All in favour?

Some hon. members: Agreed.

Branden Leslie (Portage—Lisgar, CPC): Why is it higher than normal?

The Clerk of the Committee (Leif-Erik Aune): I asked for an extra headset just in case we have a remote witness.

The Chair: The second one is the study on the Major Projects Office mandate regarding priorities and operations. Again, it's \$750.

All in favour?

Some hon. members: Agreed.

The Chair: The third is the study on the net-zero advisory body. It's \$1,000 for the two past members to appear.

All in favour?

Some hon. members: Agreed.

The Chair: Finally, we have a study on the plans and priorities of the Parks Canada Agency. It's \$750.

All in favour?

Some hon. members: Agreed.

The Chair: That's great.

From Université du Québec à Montréal, we have Mark Purdon, associate professor.

From the Coalition of Concerned Manufacturers & Businesses Canada, we have Catherine Swift, president.

From the International Institute for Sustainable Development, we have Aaron Cosbey, senior associate; and Steven Haig, policy adviser.

Thank you so much for joining us online this morning. Each organization will have five minutes to provide opening statements. We'll then move to questions by committee members.

We will begin with Mr. Purdon for five minutes.

The floor is yours.

[Translation]

Mark Purdon (Associate Professor, Université du Québec à Montréal, As an Individual): Thank you, Madam Chair.

[English]

Thank you, Madam Chair and members of the committee, for the opportunity to appear today virtually.

My name is Mark Purdon. I'm associate professor at école des sciences de la gestion at UQAM here in Montreal where I've held the chair in decarbonization. I'm a political scientist who has studied carbon markets for over two decades and have closely observed the Quebec cap-and-trade system since its inception, as well as international climate financing carbon markets under the Paris Agreement and Kyoto protocol. I'll mention that I'm currently co-editing a book under contract with the University of Toronto Press on Canadian carbon federalism, which includes chapters from academics from coast to coast to coast, including on indigenous peoples and carbon federalism.

In January, I submitted comments to the minister on the discussion paper "Driving Effective Carbon Markets in Canada", and I welcome the chance to speak to those views today.

My main message is this: Canada's federal industrial carbon pricing system should evolve towards a cap-and-trade system based on absolute emissions accounting. The Quebec model, linked with California's, should serve as a reference point for that evolution. Absolute accounting offers greater environmental integrity, superior transparency and better alignment with the global carbon coalition now forming around the European Union's emissions trading system. I will highlight three reasons.

The first is transparency. Canada's output-based pricing system has serious transparency problems. Confidential facility-specific performance standards, complex credit calculations and opaque effective prices make it very difficult to know what industry is actually paying. The federal headline carbon price is \$95 per tonne of CO₂ equivalent, but the Canadian Climate Institute has estimated in some of their research that large emitters pay approximately \$10 per tonne on average, so one-eighth of the headline price. In Quebec's cap-and-trade system, the last auction cleared around \$40 per tonne, and that price is publicly available and applies uniformly across covered emitters. While there are concerns about free allocation in the Quebec system, their share is slated to decline, and both California and Quebec are now working to address the issue of overallocation.

The transparency issues are not minor technical ones. They make it difficult for Canada to compare stringency across different provinces, which each have their variations on their own output-based pricing system. Therefore, it's difficult to evaluate the equivalency with Quebec or to demonstrate compliance with emerging international requirements, such as the EU's carbon border adjustment mechanism, which just came into force earlier this year.

The second issue is environmental integrity and market stability. An absolute emissions cap drives a better environmental guarantee than the output-based pricing system. When the EU ETS faced suppressed prices during its first decades, where prices were really too low, Europe introduced its market stability reserve in about 2018, which is a rules-based supply valve that adjusts auction values automatically. Canada's current OBPS proposal relies instead on a number of policy and regulatory tweaks and interventions. While I believe these will be implemented with good faith, they are slower to react and are more exposed to political interference.

A cap-and-trade system with a market stability mechanism would provide the stable, long-term investment signal that Canadian industry and Canadian clean tech need.

The third issue is international alignment. According to the International Carbon Action Partnership, almost every carbon pricing system that has emerged in recent years—including in China, Indonesia, Brazil and Turkey—is based on absolute cap-and-trade systems. Canada's output-based system is increasingly an outlier. Cap-and-trade systems are inherently more compatible with article 6 of the Paris Agreement and better prepared for the carbon border adjustment compliance being implemented by the EU. Why? It's because the prices are transparent and auditable.

• (1105)

Alignment also matters for cost. The International Monetary Fund has estimated that a uniform global carbon price of approximately \$73 Canadian—\$90 in 2025 dollars—would be the price

that we need globally to achieve 2030 Paris objectives. If Canada pursues only domestic measures, we're going to need much higher carbon prices, so this type of cap-and-trade system would allow us to better engage with these international mechanisms to help us distribute the costs of climate action.

Thank you.

The Chair: Thank you very much.

We will now go to Ms. Swift for five minutes.

Catherine Swift (President, Coalition of Concerned Manufacturers and Businesses of Canada): The Canadian manufacturing sector has been shrinking for some time. Since 2018, manufacturing as a percentage of GDP in Canada declined by 5%, while the comparable U.S. number increased by 10%. This is important because the manufacturing sector in any country is a key source of innovation, productivity and well-paid employment.

The manufacturing sector and the energy sector are closely linked, especially in Canada. Many manufacturing companies in eastern Canada are heavily dependent on the oil and gas sector for their success. Too many Canadians believe that if punitive policies are imposed on the oil and gas sector, that's Alberta's and Saskatchewan's problem, when in reality it significantly affects the welfare of the entire country. Manufacturing used to represent 20% of Canada's economy whereas it now sits at just under 10%.

The industrial carbon tax is very problematic for manufacturing businesses, and small and medium-sized businesses in general, for a number of reasons. High taxes are a key reason businesses are leaving Canada, mostly for the U.S. Adding another tax to the mix can hardly help our competitive position, notably with our largest—by far—trading partner.

Other countries, of course, do not impose such taxes.

As the tax will be levied on the oil and gas sector, among others, it will increase energy prices, which are already much too high. Manufacturers are big consumers of electricity and energy in general. They were made much more uncompetitive by these foolish failed so-called green policies. The industrial carbon tax will fall heavily on the manufacturing sector, as well as on energy—the two most productive sectors of the Canadian economy. We know that we have a serious productivity problem, so imposing an onerous industrial carbon tax on the two sectors that are most contributing to our productivity is just foolish. That affects, of course, our standard of living.

As well as feeding inflation for businesses and consumers, the industrial carbon tax adds another layer of red tape and complexity to businesses, which means additional business costs that will be passed on to consumers.

The fact that carbon credit prices have plummeted is an indication that the carbon trading market is not functioning well.

This tax is also hidden, making it more difficult to estimate its impact and gauge its effectiveness. The tax is just another reason why businesses and investment are fleeing Canada for more competitive jurisdictions. Government policy that claims to want to attract investment back into Canada, yet imposes taxes like the industrial carbon tax, is basically like trying to suck and blow at the same time.

PM Carney recently said that the so-called decarbonized carbon—which is kind of like water that isn't wet—will be in great demand around the world, so all of these very costly investments in decarbonization will be worthwhile. This is absolutely not true. Other countries want our oil and gas now, as is, and mostly couldn't care less about decarbonization. In fact, all of the costs imposed on business by this tax, plus the immensely expensive carbon capture and storage projects planned, will more likely price Canadian businesses out of the market than confer any kind of price advantage.

Canada missed a huge opportunity to provide Canadians and the world with affordable, dependable, responsibly produced energy by foolish Liberal policies of the last decade, such as the industrial carbon tax, which knee-capped our most valuable single economic sector: oil and gas. This was a major contributor to the decline in the Canadian standard of living for the last 11 years and to the fact that Canada currently ranks at the bottom of international economic comparisons.

I'd like to close with something I heard just a few days ago from one of our board members of the CCMBC. She recently opened a U.S. location for her very successful medium-sized manufacturing business. She raves about how the U.S. environment for her business is terrific compared to the environment in Canada. She happened to meet a U.S. congressman recently. It wasn't even in a business context, but she was so pleased that he was genuinely interested in her business, asked a bunch of really good and relevant questions, and was very positive about government policy that was helping her hire more people. Her comment was, "If only Canadian government politicians could be so engaged and interested".

This Liberal government doesn't seem at all concerned about truly consulting small and medium-sized firms. If it was, it wouldn't be pursuing policies as detrimental as the industrial carbon tax.

This industrial carbon tax, along with other punitive policies, means that Canadian businesses and workers suffer by losing jobs, going out of business or moving out of Canada, which many are doing. Uncompetitive conditions in the Canadian economy drove many manufacturers out of Canada long before Trump and his tariffs came along. Once a country loses its manufacturing sector, it doesn't get it back for a very long time, if ever.

Thank you.

• (1110)

The Chair: Thank you, Ms. Swift, for your statement.

We will now move to Mr. Cosbey or Mr. Haig for five minutes.

Aaron Cosbey (Senior Associate, International Institute for Sustainable Development): Thanks very much, Madam Chair. I'm honoured by the opportunity to appear before you today.

I'm a senior associate with the International Institute for Sustainable Development. I'm an economist with 35 years of experience. I'll be co-presenting with my colleague, Steven Haig, who's a policy adviser with IISD's energy program. IISD is a globally recognized think tank headquartered in Winnipeg, with over 300 experts working around the world to advance sustainable development.

This is a critical juncture for Canada's industrial carbon pricing regime. The federal government has an ongoing review of the regime's adequacy and equivalency provisions for provinces and territories. The recent federal Alberta MOU commits Alberta to an expeditious and significant strengthening of its industrial carbon pricing regime. Meanwhile, major climate policies in Canada have been abandoned or weakened, with assurances that a strengthened industrial carbon price will be able to pick up the slack.

With this in mind, we've distilled five messages from our extensive research on industrial carbon pricing in Canada.

Number one, industrial carbon pricing works. As an economist, I know that my professional colleagues don't agree on much, but there is widespread agreement that a carbon price is the most efficient way to achieve industrial decarbonization. Canada's large-emitter trading systems are a model. They give carrots to firms that innovate and sticks to those that lag, and they maintain high incentives to act while protecting against competitiveness impacts and carbon leakage. CCI analysis shows them to be Canada's most effective climate policy tool by far.

Importantly, industrial carbon pricing is not just climate policy. Decarbonizing Canadian industry is essential to maintaining competitiveness in global markets that increasingly care about low-carbon production.

• (1115)

Steven Haig (Policy Advisor, International Institute for Sustainable Development): Number two, the current regime is in trouble. In IISD's submission to the federal consultation on carbon pricing, we detailed 10 ways in which the current regime urgently needs to be improved. Notably, these include requiring minimum effective prices, that is, prices for credits in secondary markets in provincial and territorial regimes. Recent prices in Alberta, for example, have ranged between \$30 and \$40 per tonne, a roughly 60% discount on the headline price. Weak effective prices diminish the incentives that the regime is supposed to provide and undermine the certainty needed for long-term low-carbon investments.

Number three, Canada needs a strong and rising post-2030 carbon price. Without an updated trajectory, the industrial carbon price will start to decline in real terms in just four years. This is a critical challenge for an instrument that is supposed to motivate multi-decadal low-carbon investments. Modelling commissioned by IISD shows that a strong effective industrial carbon price reaching \$380 per tonne in 2040 could reduce Canada's emissions by over 100 megatonnes in 2040 relative to a status quo scenario. That's equivalent to avoiding a year of emissions from almost all road transportation in Canada, while preventing over \$30 billion in estimated climate-related damages, all with manageable economic impacts.

Aaron Cosbey: Number four, different sectors need different stringency. Under the federal OBPS, firms pay only for emissions above standards that are tailored to the individual sector. This lowers the total costs, and it prevents carbon leakage and loss of competitiveness, but research from the Commission on Carbon Competitiveness has shown that industrial sectors in Canada face very different vulnerabilities.

The current regime doesn't differentiate enough and, moreover, it applies an across-the-board annual tightening of 2% regardless of vulnerability. Modelling conducted for IISD shows that applying a more stringent tightening rate to less vulnerable sectors would have a huge impact. In a scenario with high carbon prices, it could achieve the same environmental outcome by 2040 while generating 12,000 more full-time equivalent jobs, \$2.6 billion more in GDP and just over \$1 billion more in net exports.

Number five, the industrial carbon price can't do it all by itself. As essential as the industrial carbon price is for Canadian competitiveness and for achieving our climate commitments, it is not a silver bullet. Steel mills are not going to invest in decarbonization, for example, if policies aren't in place that assure them they will be able to have future supplies of clean electricity and hydrogen.

Carbon price modelling commissioned by IISD shows that the cost of low-carbon technologies is one of the most influential factors in the model, which highlights a clear role for green industrial policy in Canada. Moreover, Canada's industrial carbon pricing barely makes a dent in the 60% of national emissions that are not from heavy industry, bypassing significant sectors like transport, agriculture and buildings.

Steven Haig: In conclusion, Canada's industrial carbon pricing regime stands at a critical juncture. With improvement, strengthening and extension alongside a supportive policy mix, it will be able to play an outsized role in helping Canada meet its climate targets

while ensuring the competitiveness of our industries in a decarbonizing world. The time to act is now.

Thank you.

The Chair: Thank you to you all for your testimony.

We will now turn to Mr. Bexte for six minutes of questions.

• (1120)

David Bexte (Bow River, CPC): Thank you, Chair.

Thank you, witnesses, for being here today. I appreciate your presence and your participation.

Ms. Swift, you warn that current policies are contributing to an exodus of investment and an erosion of capacity in Canada. What evidence are you seeing of that today, and is it accelerating?

Catherine Swift: We've been seeing quite a bit for quite a while. It isn't just recent, as I mentioned in my formal remarks. It's been going on since long before Trump. Everything's blamed on Trump these days, as we know, but the facts show otherwise. Much of this was happening long prior to the tariff situation. It's a combination of factors like tax and the red tape regime. We represent mostly small and medium-sized businesses, and it falls so heavily on them. We really need a significant reform of our whole red tape situation.

When you ask about what indicates it, StatsCan data itself shows businesses leaving Canada. I'll give you an example. Our board of governors, which is about a dozen people, most of whom are manufacturers, had no U.S. facility 10 years ago. Now half of them do, and the other half are looking to do that.

I have both anecdotal evidence and formal statistical evidence that this is happening. We've also seen some recent data on how our talented young people are also leaving.

I think it's a combination of stories that we hear from businesses and formal data such as StatsCan data.

David Bexte: Thank you. We've seen data that the top 1% earners are leaving the country and taking their intelligence and their entrepreneurship with them, as well as their wealth and resources.

You said that you're mostly small and medium businesses. What are your thoughts on the federal government's discussion of reducing the threshold to 10,000 tonnes of emissions per year versus the 100,000? How much of an impact is that going to have on the Canadian economy?

Catherine Swift: It's going to have a big impact, of course.

People only think about the cost of these kinds of taxes, but a lot of it is the regulatory load that it puts on as well, which is also a cost. It's not measured properly. Some of the other presenters here have mentioned the same thing. I think we would agree that we don't have very good measurement of the impact of these policies.

Environment Canada used to, years ago, have an economic model—and I'm an economist, too—that gauged the impact of policies such as the industrial carbon tax. It was Trudeau who got rid of it. That was just foolish, because a lot of our problem is that we don't even know the impact. We can sort of see it, but if we could measure it better, we'd have a much better idea. The current regime is not good at that.

David Bexte: Thank you.

The Canadian Taxpayers Federation and others have pointed to evidence that the carbon pricing trickles down through the system. What do you see as the household impact?

Catherine Swift: It feeds into inflation, of course, just like the carbon tax itself. We were told for years that the carbon tax didn't feed into inflation until the Liberals got rid of it. Then, suddenly, inflation went down. What a miracle. The same goes for the industrial carbon tax and, frankly, any other tax. The notion that businesses will not pass it on just illustrates lack of knowledge about how businesses operate. Of course they must. They all exist in a pretty competitive environment. There are some exceptions, but most operate in a very competitive environment. They have to be competitive. When they're faced with a heavy tax load, that gets passed down, as does the complexity aspect. Again, that increases business cost, too, and we don't measure that properly.

At a time when we're already facing major cost of living problems and major inflation, the international situation doesn't help with the Iran war and all that, which has driven up prices for everybody, the last thing we need is our government imposing even more punitive policies on every Canadian, which is exactly what it does.

David Bexte: Some recent reporting has shown that maybe 50,000 jobs are at risk if the carbon price goes up to \$170 a tonne. What does your membership say about their exposure to that, and is that accelerating their exodus from Canada?

Catherine Swift: Yes, it is. They see the plan to continue to increase the industrial carbon tax. They're looking at that and going, "Oh, it's pretty bad right now, and getting even worse."

Our economy, generally, isn't in good shape. You can get away with these things much more easily when the economy is in good shape. I think you're citing the Fraser Institute data on how many jobs would be lost.

Of course, like any economic situation, many factors play into it. Tax is one, but it also depends on the general state of the economy and what's happening with oil prices internationally. You could mention many factors that play into it.

• (1125)

David Bexte: You're alluding to a compounding effect from all these stacked issues. I would argue that we'll get to a critical tipping point, where things are going to collapse. I would suggest that we're probably close to that right now.

I wonder if you can expand on what you see as the single biggest risk to Canada's manufacturing sector, if these policies continue.

Catherine Swift: They're fleeing Canada. We've already seen the data that prove they're leaving the country.

Manufacturing is hugely important—I hope I made this point in my remarks—to any economy. The small and medium-sized business sector is also hugely important. If we lose that combination, it's very hard to get back. It's not just that it adds to the GDP, which, of course, it does. It's also the innovation side, the productivity side and the stuff we lack in Canada right now. It will get even worse, indeed, if we lose so much of our manufacturing sector.

David Bexte: Our brightest investors are leaving.

The Chair: Thank you.

We will now turn to Mr. Greaves for six minutes.

Will Greaves (Victoria, Lib.): Thank you, Madam Chair.

Good morning to the witnesses—although it's a challenging morning at committee when we hear witnesses offering testimony that, unfortunately, seems deeply at odds with the facts. I would suggest that it is highly misleading, as well, as we move forward with our work and try to prepare a fact-based and evidence-based analysis of the incredibly important issue of industrial carbon pricing in this country.

I know some of our colleagues opposite are concerned about the pending changes to the composition of our committees, with more government members likely to be added. I'm glad you have some witnesses here who can effectively serve as additional CPC members, in terms of the quality and tenor of their testimony this morning.

I would like to ask our witnesses from the International Institute for Sustainable Development whether or not they could speak to the claims that have been made regarding the impacts of the industrial carbon price in Canada on small businesses and on Canada's international competitiveness.

Mr. Cosbey or Mr. Haig, would either of you be able to take a crack at that question?

Aaron Cosbey: I can take a crack at it.

The testimony you've had to date has been pretty definitive in suggesting that the way the large-emitter trading systems in Canada work, including the OBPS, effectively shields businesses from competitiveness impacts and the risk of carbon leakage. I'm repeating what's already been told to you in committee. Firms only pay above the sectoral standard that's been set for them. Below that, there are no emissions. In fact, firms that beat the average sectoral emissions make money off it. There is incentive to improve, and there are sticks for those that don't.

Come on. Let's be real and fact-based. The average cost of carbon is quite low for these firms. That's deliberate. It's a mechanism for protecting these firms from competitiveness impacts.

Will Greaves: Thank you for that response.

Maybe I'll start with you, Mr. Cosbey, as I continue into my second question.

Can you situate Canada and our carbon-pricing regime for us, relative to other comparable industrialized economies?

Aaron Cosby: Sure.

To start, carbon pricing is ubiquitous throughout the world. There are over 50 economies with national-based carbon-pricing regimes, and over 20% of the world's GHG emissions are covered by those pricing regimes. Ours is not more ambitious than the EU's, for example—which has talked about full carbon pricing—or Sweden's. It falls somewhere in the middle. It is a normal industrial carbon pricing regime. It contains the normal mechanisms for protection against competitiveness and leakage. All are different, but ours is not an outlier.

Will Greaves: Thank you for that.

I'll turn to Dr. Purdon this morning.

Good morning. Thank you for joining us.

Could I start with the same question for you, sir? Can you situate Canada's industrial carbon price in the context of comparable industrial economies?

Mark Purdon: I might differ from the previous response a bit.

I find that the output-based pricing system is different from what we see in most of the other jurisdictions with carbon pricing, where they have absolute cap-and-trade systems that have been introduced. There are lots of complications. There are some elements...things like the output-based pricing scheme in some of these other climate emissions trading systems, but the output-based pricing system in Canada is significantly different.

I'll give you the numbers in my head after looking at some of these reports. The vast majority of carbon pricing is now in these emerging cap-and-trade systems. A lot of them tend to be sectoral. Indonesia's cap-and-trade system is focusing on the industrial sector. It's not as widespread as what we have in Quebec, which is a bit different. It's the same in the European Union, where it's mostly in industry and power generation. Now the European Union is developing a second emissions trading system for the transport and building sectors, which will be separate systems. However, as I understand it, it's an absolute cap-and-trade system, which is different from what we have with our output-based pricing system, currently.

• (1130)

Will Greaves: Thank you for that, Dr. Purdon.

Mr. Cosby and Mr. Haig, could you speak, please, to what you see as the risks to Canada's international competitiveness of removing or further diluting our current policies to reduce emissions and address climate change? How would that affect Canada strategically, in comparison to our trading partners and allies?

Aaron Cosby: We know that the future of global commerce is one that cares about the embodied carbon in traded goods. We have the CBAM in the EU. The U.K. has indicated that it will have a CBAM. Norway has similarly indicated. Thailand and Taiwan

If you water down that regime, you put at peril future markets that, as I said, do care about embodied carbon in traded goods. We have the CBAM in the EU. The U.K. has indicated that it will have a CBAM. Norway has similarly indicated. Thailand and Taiwan

have one in place. Australia is exploring one. Then you have private sector demands going back up the value chain.

There are over 100 steel standards testifying to green steel in process or in place; most are private sector-driven. Two-thirds of the Montney gas production is certified. Why?

The Chair: Thank you very much.

[*Translation*]

Mr. Bonin, you now have the floor for six minutes.

Patrick Bonin (Repentigny, BQ): Thank you, Madam Chair.

I thank the witnesses for joining us.

Ms. Swift, I would like you to answer my question with a yes or no.

In your opinion, is there global warming caused by humans and the burning of fossil fuels?

[*English*]

Catherine Swift: I find there's a lot of mixed evidence. It's interesting how the science is moving away from man-made—

[*Translation*]

Patrick Bonin: I'm sorry to interrupt you, Ms. Swift, but I have limited speaking time.

My question is simple, and I would like you to answer it simply with a yes or no.

Is there climate change caused by humans and fossil fuels?

[*English*]

Catherine Swift: No.

[*Translation*]

Patrick Bonin: Could you repeat your answer, please?

[*English*]

Catherine Swift: No.

[*Translation*]

Patrick Bonin: Fine.

Thank you, Ms. Swift.

Mr. Purdon, you mentioned the advantages of a cap-and-trade system compared to a pricing system. Could you give us a little more detail on that? What are the advantages?

[English]

Mark Purdon: I think the advantage of the allowance-based system is that it's a more credible measure, and there are more transparency issues with regard to the effectiveness; this is currently being discussed. It's more easily observed in emissions trading systems with absolute emissions counting.

There are a number of issues with transparency and accountability that are embedded in that versus the output-based pricing system. We have much more transparency on what the costs are and the regulatory burden associated with that. I think we have to be sensitive to those issues, as Ms. Swift was raising.

[Translation]

Patrick Bonin: I see.

By the way, thank you for your well-documented, scientific and rigorous work.

These systems are very complex. Would it be possible for you to provide us with documentation to give us more details on the issue of transparency, among other things, that you just raised?

Generally speaking, do you think it would be beneficial to replicate a system like the Western Climate Initiative across Canada?

• (1135)

Mark Purdon: Generally speaking, I think so.

[English]

I think the Western Climate Initiative, which Quebec is part of with California, with its absolute emissions accounting system, has certain advantages in terms of the criteria I mentioned earlier—transparency being amongst the most important.

I think it's also important that there is momentum building in the United States on the Western Climate Initiative. The state of Washington is very likely to join next year. There are discussions in New York state and Colorado. There seems to be, again, some momentum in the United States. That's also something of importance to consider because of the linkages that are still present between the Canadian and U.S. economies.

[Translation]

Patrick Bonin: Could you tell us a little about absolute emissions accounting? Is it important compared to emissions intensity accounting, for example?

[English]

Mark Purdon: The output-based pricing system will require some sort of analysis and information for each specific firm that is being regulated under an output-based pricing system. That requires a whole information-gathering effort and technical analysis validation. There are a number of steps in that process.

With absolute emissions trading systems, yes, there are complications. Firms need to be able to measure their inventory's greenhouse gas emissions, but we've been developing these capacities and practices over a decade in Quebec, and I think that probably most firms across Canada have already developed these capacities. There is a standardized process, whereas each output-based pricing system seems to have its own specific rules and regulations about

how to calculate the thresholds and how to measure compliance, which become very complex.

[Translation]

Patrick Bonin: In your opinion, is a single price signal from industrial carbon pricing sufficient to reduce emissions quickly enough and to align pricing with the Paris Agreement's goals? If so, do you think there should be a minimum price? What price should we aim for?

[English]

Mark Purdon: I'll respond with a situation in Quebec. There are benefits from emissions trading with California because of reduced compliance cost. It's cheaper to reduce emissions in California than in Quebec because Quebec is relatively energy clean, so a lot of those emission reductions are achieved in California relative to Quebec. That brings down the compliance cost considerably.

There are all sorts of issues going on in California. We can get into it if you want, but the most important thing is that, if Quebec were to delink from California to meet its 2030 reduction target, carbon prices in Quebec would need to rise to over \$300 per tonne. Right now, they're about \$40 or \$50. That's a bit suppressed because of political problems in California. They should certainly be higher in California and Quebec to drive toward the 2030 reduction targets, jointly, of those two jurisdictions. However, it's an order of difference from what Quebec would need to achieve those reductions unilaterally.

The Chair: Thank you.

We will now turn to Mr. Leslie for five minutes.

Branden Leslie: Thank you, Madam Chair.

Ms. Swift, I'm sorry you had to face such slanderous commentary towards you and, frankly, small and medium-sized manufacturers across this country. However, I did appreciate that the quiet part was said out loud. We can look forward to a majority government scenario in which dissenting voices of all types are going to be silenced as much as possible.

When the United States is moving in one direction, and Canada is piling on more industrial carbon taxes, are we making it easier or harder to keep manufacturing jobs and investment in this country?

Catherine Swift: The data are clear. We're making it much harder, and that's been going on for some time now. It's not a recent phenomena.

I think we can be theoretical all we want, but the data are very clear, and they are facts. They're not theory. People are leaving. Talented individuals are leaving. Frankly, everyone wants to do something good for the environment, including small and medium-sized businesses. They're actually often better than large corporations, but the stick and not the carrot is not the way to go.

As we know, the belief in this climate change being man-made, years ago, was very much, “The science is settled.” Well, the science is nowhere near settled. More and more people who initially very much believed in that don't anymore once they actually analyze the data. If we don't have our economy in a decent state, which we do not right now, we won't even be able to afford the kinds of climate incentives that we might all want to do, so again—

• (1140)

Branden Leslie: Ms. Swift, I'm sorry to interrupt. You mentioned and warned that capital is mobile, and you mentioned that roughly half of your existing board members have already set up a facility, in addition, in the United States. When these decisions are being made by those businesses or others, what role does the industrial carbon tax have in deciding what jurisdiction to set up shop in?

Catherine Swift: It's not the only thing, obviously. There are a lot of things, like the tax burden overall, the accumulative tax burden. The red tape burden is equally bad. I would say that, one, it's not a major factor, but it's one of many factors.

This is the other problem. We have so many mechanisms. We keep getting told carbon pricing is the best way to go economically, as it's market-based, etc., but we have all kinds of other stuff we're piling on top of carbon taxes too. A lot of it is regulatory. If somebody really believed that carbon tax is it, then let's do only that. Why do we have all this other regulatory stuff piled on top?

Branden Leslie: In that vein, you mentioned this in representing small and medium-sized manufacturers. They often get hit especially hard because of the immense complexity of the regulatory red tape burden they face. However, they don't have compliance departments, lawyers on staff or the margins of the larger players.

Is it accurate to say that these policies hit SMEs much harder?

Catherine Swift: They do, of course.

I have tons of evidence, if anybody's interested. Businesses with fewer than 20 employees make up 98% of business in Canada. They represent half of our GDP and roughly 60% of overall employment. If you think that ignoring the small and medium-sized business sector doesn't have much of an impact, the data will show you to be dead wrong.

Branden Leslie: You also alluded to the fact that the businesses are going to eat these costs, and they won't get passed down the value chain. Government seems to believe that's the way it's going to work. The dastardly businesses are going to pay the taxes.

In the real world, who ends up paying more when manufacturers get hit with higher carbon taxes?

Catherine Swift: Often, they do suck up some of it.

I've been talking to some of our manufacturing members recently. A year ago, their businesses were in good shape, so they could stand some of these punitive policies. They take a long view. They can hang in for six or eight months, or whatever it happens to be. These are good businesses that have been around for a long time, but now they're saying that things are getting critical. This why they're looking at other jurisdictions, notably the U.S.

We can talk about Uzbekistan and their system, but 75% to 80% of our exports still go to the U.S., despite current measures. That will continue, in large part.

Branden Leslie: You mentioned the stacking and the tough decisions your members are making. Do you see changing behaviour among your members because of these costs? I think of things like delaying expansions, laying the foundation but the building not actually going up, cancelling projects, scaling back size or simply moving out of the country.

Catherine Swift: I definitely see that. They're expanding in the U.S., so Canada's the loser. Often, they will leave an operation in Canada—a rump operation—but they do their growth, innovating and whatnot south of the border.

It's interesting. As long as they leave some operation in Canada, the data don't show them as leaving because they're still here. Do you see what I mean? Even the data about leaving—and we have significant data—don't represent the whole picture, in that respect.

The Chair: Thank you very much.

[*Translation*]

Mr. St-Pierre, you now have the floor for five minutes.

[*English*]

Eric St-Pierre (Honoré-Mercier, Lib.): Thank you.

Ms. Swift, did you say that climate change isn't real and it's not a problem?

Catherine Swift: No, I didn't say climate change is not a problem. I said that the notion of man-made climate change is really the issue. We know climate has changed for millennia and will continue to change for millennia.

Bjorn Lomborg, who is quite an expert on this issue, feels that the idea is adaptation, not taxation, as do a lot of people.

Eric St-Pierre: Mr. Cosbey, what would you say to that?

Aaron Cosbey: Frankly, if that's your starting assumption, then I can understand the policy recommendations that come from it.

When looking at credible bodies of science, like the Intergovernmental Panel on Climate Change, which comprises over 3,000 natural scientists, economists and physical scientists, the evidence compiled from peer-reviewed studies seems to overwhelmingly indicate, with infallible certainty, that climate change is a man-made phenomenon.

Yes, we've had climate change over the years, but never at the scale and speed at which we're experiencing it now.

• (1145)

Eric St-Pierre: Thank you.

[*Translation*]

Mr. Purdon, is climate change real?

Mark Purdon: Yes, and it is caused by humans.

Eric St-Pierre: Mr. Purdon, do you agree that industrial carbon pricing is an effective mechanism for reducing our emissions?

Mark Purdon: Yes.

[*English*]

I think it's been effective. The research coming out suggests that it's the most effective tool being used by the Canadian federal government. However, the prices are low, and the objective is still quite far away.

[*Translation*]

Eric St-Pierre: Perfect.

I know you're from Quebec, but you can answer my next question in English. It concerns the cap-and-trade system, or SPEDE.

Are small and large businesses in Quebec in favour of SPEDE?

[*English*]

Mark Purdon: There have been two public opinion surveys that I know of. One was conducted in about 2017 with firms under the cap-and-trade system. There was no objection to participation. Prices were very low back then.

I had a master's student try to replicate that study a few years ago. In the smaller sample that we were able to do, there did not appear to be any resistance from Quebec firms to carbon pricing.

[*Translation*]

Eric St-Pierre: Thank you.

[*English*]

Mark Purdon: It includes a lot of purchases from allowances imported from California, I would add.

[*Translation*]

Eric St-Pierre: Mr. Purdon, could you please send us these studies, reports, or any other documents that might be useful to the committee?

[*English*]

Mark Purdon: Yes. Will do.

Eric St-Pierre: Mr. Cosbey, we're very lucky to have you here. You're one of the world's leading experts on carbon border adjustment mechanisms, CBAM, in Europe, and on the industrial carbon price. You've led the Commission on Carbon Competitiveness. Your expertise is sought throughout the world.

Can you share with our committee any reports that you or IISD have produced that demonstrate why industrial carbon pricing is actually positive for Canada?

Aaron Cosbey: I'd be happy to share the three reports produced in 2004 and 2005 by the Commission on Carbon Competitiveness, which, as you noted, I led. The basic findings were that our energy-intensive trade-exposed sectors are vulnerable, but not economically vulnerable in a competitiveness sense, to carbon leakage or competitiveness impacts from carbon pricing.

Eric St-Pierre: Great. Thank you.

Last week our Prime Minister announced a September investment summit whereby the goal is to crowd in or draw in about \$1 trillion in capital to Canada's economy. It's being led by major pension funds, PSP and Canada pension plan, really with the idea of attracting large institutional and pension fund capital. Additionally, Canada on a per capita basis is attracting more foreign investment than any other G7 country, roughly double that of our closest G7 partner. This is actually the highest level in the last 18 years. This just means more growth, more jobs and more opportunities. This is also being done in a context where we have an industrial carbon price.

Mr. Cosbey, I'm wondering if you could explain to our committee and our Conservative colleagues why industrial carbon pricing goes hand in hand with a resilient economy and actually helps attract capital.

Aaron Cosbey: I agree with Catherine Swift that we have a competitiveness crisis in Canada. I agree with the motivations that are bringing that investment into Canada as one way to solve it, but our future competitiveness depends on the degree to which we can decarbonize our exporting industries. Those exporters are going to face restrictions—are now facing restrictions—based on the carbon content of their exports.

[*Translation*]

The Chair: Thank you, Mr. St-Pierre.

Mr. Bonin, you now have the floor for two and a half minutes.

Patrick Bonin: Thank you, Madam Chair.

Mr. Purdon, I would like you to tell us a little about carbon border adjustments in Europe. Could there be consequences for Canada if there were no equivalent carbon pricing system? Would this be something worth implementing in Canada?

[English]

Mark Purdon: I would really defer to Mr. Cosbey on this issue. As I understand it, the demonstration of Canadian conformity with the CBAM will be a bit complicated because of the accounting issues involved with demonstrating the impact of the output-based pricing system. Those are the complications we've discussed already. If Canada would also introduce something similar to that, I think the OBPS could also slow down the adoption or the general perceived legitimacy of that type of CBAM in Canada.

I would defer to other experts on this issue.

● (1150)

[Translation]

Patrick Bonin: Actually, Mr. Cosbey, I wanted to thank you for all your work.

Could there be consequences if Canada did not have sufficient carbon pricing for Quebec businesses, even though Quebec has a system in place that it would like to export to Europe? Could Quebec be at a disadvantage if Canada did not have a sufficiently robust and solid system?

[English]

Aaron Cosbey: No. Our exports to Europe are actually favourably impacted by the EU CBAM, especially in the context of steel and aluminum. In both sectors, we have a lower average GHG intensity than European producers. The CBAM actually gives us a price premium in the European domestic market. We are advantaged by having a carbon price, because that will be deducted from our CBAM fees, but as Dr. Purdon has noted, it's complex to figure out how much.

With respect to whether we need such a mechanism in Canada, at present our competitiveness issues are dealt with by the sectoral standards within OBPS and free allowances in Quebec, but as we get further toward net zero, we will have to start thinking about our own border carbon adjustment mechanisms.

[Translation]

Patrick Bonin: Thank you.

[English]

The Chair: Mr. Dalton, it's over to you for five minutes.

Marc Dalton (Pitt Meadows—Maple Ridge, CPC): Thank you.

Thank you to the witnesses for joining us today.

I had a conversation last week with somebody who had sent in an email. I gave him a call. He was very shaken. He was actually breaking down in the conversation. He was talking about the challenges that he and others are facing with the cost of living and other challenges. He was talking about the current government and how its policies are impacting everyday Canadians. He challenged me. He said, "Marc, you need to get your voice out there and speak to this, because it's hurting us. These policies are hurting us."

We can live in our ivory towers, and we get our government paycheques, but everyday people who are relying on jobs, working hard and not just receiving from the government, are struggling.

I'd like to direct this question to Ms. Swift.

The industrial carbon tax is an extra cost. The Liberals have argued with us saying that the carbon tax, among many other things, but let's talk specifically about the industrial carbon tax, does not impact food costs, that it doesn't impact the cost of living. However, people in British Columbia, where I live and where things have been stagnating for the past decade under this Liberal government and under the NDP government, have been struggling. I see that.

Can you make some comments, please, just on this one issue of the industrial carbon tax and its impact on the cost of living and food? Then we can expand a little more.

Catherine Swift: Of course it affects the cost of living. Every tax affects the cost of living in one way or another. However, it is only one in a suite of taxes we have in Canada.

The original consumer carbon tax, if you remember, we were told, didn't affect inflation. Of course it did. Any economist worth their salt knows that, and any average person probably knows it too.

Some of the spin here is a problem. People have been lied to about the impacts of these taxes, and the industrial carbon tax is just one of many, that, of course, feed into the cost of living.

Also, because it falls so heavily on the energy sector and because it's a relatively high-emitting sector, transportation.... We import a lot into Canada and that has to be transported. Most of it is transported by truck. There you have a very direct relationship between the price of gas and how it feeds into prices for pretty much everything, consumer goods, food naturally, and so much else.

Again, we're a big importer. We're a big exporter too, but we are a big importer. That's one way it definitely impacts the price of pretty much everything.

● (1155)

Marc Dalton: Thank you very much.

I visit businesses and industries across British Columbia, including on Vancouver Island. They are in forestry, fishing and manufacturing. We're seeing mills closing down. We're seeing thousands of people losing their jobs. We've seen that happen in my community of Maple Ridge. The largest mill, Hammond mill, closed down a number of years ago.

We're talking to these people, the owners who have moved their businesses elsewhere. As you mentioned, they'll keep a shell in British Columbia, or in Canada, but they're moving out because it's a much better investment.

Can you speak a bit more to how, among other things—I know you mentioned regulations—the industrial carbon tax is impacting our competitiveness and the job market?

Catherine Swift: Well, it's all part and parcel of the same thing. Everything in economics is interconnected, as we know. Again, you can talk all you want about Europe. Some 4% to 5% of our trade is with Europe, so it's not unimportant, but it certainly isn't the vital factor driving it. The U.S. by far is our major trading partner, and it doesn't have anywhere near the kinds of regulations and carbon-related things like the industrial carbon tax that we do. That's the major thing.

People aren't moving so they can go to France or Germany or wherever. They're moving to the U.S. By the way, they don't want to move. I can tell you as someone who speaks to these businesses all the time—and I think a lot of you politicians need to get out more, frankly—they don't want to move. Moving is expensive, and they have family and all the usual reasons. They do it because they have to, to stay in business.

The Chair: Thank you.

We will now turn to Mr. Fanjoy for five minutes.

Bruce Fanjoy (Carleton, Lib.): Thank you.

First of all, Ms. Swift, in your earlier testimony, you mentioned that you don't believe that climate change is man-made. Is that the position of the Coalition of Concerned Manufacturers & Businesses of Canada?

Catherine Swift: Yes, it is.

Bruce Fanjoy: Thank you.

Catherine Swift: Of course, climate change exists; nobody's saying that it doesn't exist. The data are very clear.

Also, why is it that no country in the world has met any of their so-called Paris Agreement goals and whatnot, and people are completely falling away?

Bruce Fanjoy: Thank you, Ms. Swift.

Mr. Cosbey, I want to touch on the competitiveness of our businesses in the future. My background, before I got into this job, was in business and marketing. Ultimately, the world's economy is going to electrify. We're seeing it already. It's not going to stop. Eventually, all of our industries will do so as well just because it's simply good for business.

When we do it relative to our competitors matters. If we're playing catch-up, then there's no competitive advantage. If we lead, however, it can improve the competitiveness of our businesses and the jobs they create.

Could you please comment on how timing matters with respect to how we address these issues?

Aaron Cosbey: That's an excellent question. To answer it, I would point to the evidence that the private sector understands the

point you're trying to make here. As I said, if we look to the steel industry, over 100 existing or in-development standards are trying to testify to green characteristics of steel, and most of them are private sector led. Why would they bother?

In the natural gas sector, over 20% of North American natural gas is certified by either Equitable Origin or MiQ as sustainable. Two-thirds of it is Montney gas. Why would they go to that expense? It's because they understand implicitly that future markets for their products are going to be dictated by how they are viewed. Also, let's not forget that it's not just about market access; it's also about investors' concerns about their viability.

It's a fundamental, critical aspect, and the sooner you get out there, the better. The leaders in this rush to green are going to be the winners.

● (1200)

Bruce Fanjoy: That being the case, why are there so many voices seeking to sow misinformation and disinformation that is helping to delay Canadians in addressing this problem? That applies to both individuals having a more affordable life by reducing their dependence on fossil fuels and businesses held back from the advantages of addressing this issue.

Aaron Cosbey: In some cases, it's just a clear example of vested interest. If you, for example, are a natural gas manufacturer, you don't want government subsidies or mandates for heat pumps.

In other cases, it's part of a broader push-back against regulatory overreach, where you're lumping together things like the industrial carbon tax, which is an efficient instrument, with an oil and gas cap or the consumer carbon tax, which I agree with, that had impacts. You're putting them all together in one big bundle and saying, "We hate it all."

I'm not going to try to offer a rational explanation for it. It's a short-sighted interpretation of competitiveness and where the market is headed.

Bruce Fanjoy: I think you hit on an important thing about the short-sightedness of it. The future does come at us quickly. What would you recommend as the most impactful things we could be looking at in order to get businesses to think a little bit more long term and skate to where the puck is going, rather than to where it's been?

Aaron Cosby: I come back to our final recommendation. The carbon price can't do it by itself. If you want to incentivize decarbonization in the steel sector, you're going to need to provide them with policies that ensure low-carbon electricity—and we know how to do that—and that ensure that there's going to be green hydrogen available. You need first-of-a-kind subsidies, carbon contracts for the difference and tax incentives, all to complement the incentives that you give a carbon tax.

We know how to do this; that's not the problem.

The Chair: Thank you very much, Mr. Fanjoy.

Thank you so much to all the witnesses. That concludes our hour of testimony. Thank you for being here and sharing your perspectives with us today.

We will suspend briefly to switch over to the next set of witnesses.

• (1200) _____ (Pause) _____

• (1205)

The Chair: I call the meeting back to order.

We are continuing the final hour of our study on industrial carbon pricing.

We have two witnesses online for this hour. Thank you for being here with us today.

We have Ross McKittrick, professor of economics from the University of Guelph, joining us by video conference. From Fertilizer Canada, we have Michael Bourque, president and chief executive officer, and Nadine Frost, vice-president of industrial relations. Both are here in person.

Thank you very much for being with us today.

We are going to do five minutes of comments from the witnesses to begin, and then we'll go to questions from committee members.

Mr. McKittrick, the floor is yours for five minutes.

• (1210)

Ross R. McKittrick (Professor of Economics, University of Guelph, As an Individual): Thank you. I believe you also have Heather Exner-Pirot as a witness.

I hold a Ph.D. in economics from the University of British Columbia and since 1996 I've been a professor of environmental economics at the University of Guelph. I'm also currently serving as a special adviser to the United States Department of Energy.

In the early 1990s, I developed and published one of the first computable general equilibrium models of the Canadian economy, focused on modelling CO₂ emissions and climate policy. Since then, I've published over 100 peer-reviewed academic papers and think tank reports on all aspects of climate change, including the development of tools for the empirical analysis of climate policy. My textbook, *Economic Analysis of Environmental Policy*, was published in 2010 by the University of Toronto Press.

For today's hearing, I am submitting a recent report co-authored with my colleagues at the Fraser Institute, entitled "Estimated Im-

pacts of a \$170 Industrial Carbon Price in Alberta and Canada". This paper uses a computable general equilibrium model of the Canadian economy, which was previously used in the peer-reviewed economics literature to analyze the impacts of the federal EV mandate.

Our analysis compares two scenarios between now and 2030.

In the base case, the consumer carbon tax is removed, the federal industrial carbon tax is held fixed at its current level and the Alberta TIER price is allowed to remain at its current low level relative to the federal charge. The policy experiment consists of raising the federal industrial carbon tax according to the announced schedule but adjusted for inflation, while forcing the Alberta emissions charge to converge to the federal level. In line with the federal emissions reduction plan, the threshold for chargeable emissions under the output-based pricing system is lowered over time, so in addition to the rate increasing, the tax coverage rises as well. Also in line with the emissions reduction plan, we assume 10% of the tax revenues support new spending, and 90% are retained by the government.

The overall results are as follows.

The economy still grows, but more slowly, so that by 2030 national gross domestic product is 1.3% lower than it would otherwise be. For Alberta, the gap is 2.0%. Real income per worker is 1.1% lower nationally than under the base case, while for Alberta the gap is 1.6%. Much of the cost falls on capital rather than labour. Nationally, real after-tax labour income drops by 0.6% relative to the base case, whereas real after-tax capital income drops by 8%. The labour market contracts slightly, with a loss of about 50,000 jobs nationally, of which over 10,300 are lost in Alberta.

Our model projects that due to the industrial carbon price, greenhouse gas emissions will fall nationally by about 14% relative to the base case. The loss of real GDP works out to just over \$300 per tonne of emissions reductions. The finding that the total economic cost of emission reductions is more than twice the real rate of the tax itself is common in general equilibrium modelling and is consistent with the well-established economic theory of the excess burden of taxation.

The impacts of the tax are not spread equally across sectors but fall relatively heavily on energy-intensive industries, which comes as no surprise. Some of the hardest-hit sectors include oil sands, natural gas, electricity and other utilities, refining, manufacturing and transportation.

I will conclude with three observations.

First, governments need to be honest with the public that meeting ambitious greenhouse gas targets is costly and involves a reduced standard of living. False promises that decarbonization will somehow make us better off only invite inevitable backlash when the costs become apparent.

Second, carbon pricing is, in theory, the most efficient economic mechanism for reducing greenhouse gas emissions, but the theory only applies when it is the only policy mechanism used. When emitting activity is also subject to burdensome command-and-control regulations, as is the case in Canada, the potential efficiency of carbon pricing is lost, and emissions reductions are achieved at unnecessarily high costs.

Third, climate change is a global issue and it is important for Canada to coordinate our policies with what our major trading partners are doing. It has been common over the past 30 years for countries like Canada to incur the costs of relatively aggressive climate policies only to see the emitting activity relocate to other jurisdictions. The result is that Canada loses the jobs and investment while global emissions do not go down.

• (1215)

Thank you.

The Chair: Thank you, Mr. McKittrick.

Before proceeding, I apologize for my brain and technology snafu. We do have other witnesses here.

Online, we have Heather Exner-Pirot, director of energy, natural resources and environment at the Macdonald-Laurier Institute. In person, we have Jason Clark, vice-president at New Economy Canada.

We will also be receiving testimony from those witnesses.

Next we will go to Mr. Bourque and Ms. Frost for five minutes, please.

Michael Bourque (President and Chief Executive Officer, Fertilizer Canada): Thank you, Madam Chair, and members of the committee for the invitation to appear today.

Fertilizer is essential to feeding Canada and the world. Roughly half of global food production depends on fertilizers. Meeting the food demands of a growing world population would be impossible without them.

Canada is a global leader in sustainable fertilizer production and manufacturing, producing and exporting nearly 40% of the world's potash to growing markets around the world. We are the Middle East of potash. Potash is a critical mineral and an essential plant nutrient.

Canada is also a significant producer of nitrogen fertilizer, supplying our domestic agricultural market and exporting to the United States.

Canadian potash is produced with 50% lower greenhouse gas emissions compared to other countries. Our ammonia fertilizers are manufactured with at least 30% lower net emissions intensity than other jurisdictions.

We are here today to contribute to the study on Canada's industrial carbon pricing regime and share the fertilizer industry's perspective.

I will now hand over to my colleague, Nadine Frost, who will continue.

Nadine Frost (Vice-President, Industrial Relations, Fertilizer Canada): The competitiveness of Canada's fertilizer industry is currently under threat. Our fertilizer producers and manufacturers currently face a disproportionate regulatory burden on carbon pricing relative to our global competitors.

Fertilizer production facilities are emissions-intensive and trade-exposed, putting them at high risk of competitiveness and carbon leakage impacts.

Fertilizer Canada completed a study with PwC last year to quantify the impact of Canada's current carbon pricing regulations on our sector. The study showed that the fertilizer sector is facing up to \$1.32 billion in cumulative carbon costs from 2025 to 2030. Nearly 60% of the overall carbon pricing burden faced by Canadian fertilizer producers stems from indirect carbon costs applied to energy and electricity inputs, as well as transportation fuels, which are passed down costs to Canadian fertilizer producers and are beyond the industry's control.

Unlike our major international competitors, including Russia, Belarus and the U.S., Canada is one of the few countries to apply both direct and indirect carbon pricing to fertilizer production, energy inputs and transportation. This results in substantial cost increases to production that can't be passed down to customers in an intensely competitive global commodity market.

In other words, none of the other major fertilizer-producing nations competing in North America have implemented carbon pricing, which puts us at a competitive disadvantage.

Of course, the cost of carbon alone doesn't tell the whole story. If the cost of carbon is weighing down one side of the see-saw, the other side could be balanced by effective carbon credit markets, investment incentives and lower-carbon premiums. Unfortunately, the see-saw is not balanced for the fertilizer sector in Canada. We don't have an established global pricing premium on lower-carbon commodity fertilizer products. The investment tax credits have been designed with constrained scope and timelines, and we lack stability in the current carbon credit markets.

Given the strategic importance of fertilizer, it is essential to protect and strengthen our industry's competitiveness.

We are looking for government to recalibrate industrial carbon pricing and align the investment readiness of the fertilizer production sector to provide some relief from these impacts of carbon pricing.

While maintaining provincial jurisdiction, this recalibration should recognize fertilizer production in the highest-risk category of emissions-intensive and trade-exposed sectors and provide relief from tightening factors. For nitrogen manufacturers, we are also seeking relief on how industrial process emissions are captured for use as feedstock.

These changes are needed to address the very real competitiveness challenges we are seeing and to preserve and develop capacity for future investment in clean tech. This will support an environmentally and economically competitive fertilizer sector here in Canada.

We are not alone in raising concerns with the competitiveness of emissions-intensive and trade-exposed sectors. We contributed to a joint brief that was submitted to the committee on behalf of nine industry sectors that raised concerns with the recent discussion paper from ECCC. Our brief recommended a renewed focus on competitiveness, provincial and territorial flexibility, and revenue recycling under Canada's carbon pricing programs.

Thank you for your attention. We welcome your questions.

• (1220)

The Chair: Thank you very much.

We will now turn to Ms. Exner-Pirot for five minutes.

Heather Exner-Pirot (Director, Energy, Natural Resources and Environment, Macdonald-Laurier Institute): Thank you, Chair and committee members, for the opportunity to speak to you today.

We are at a very important moment in Canadian and global history—what Prime Minister Carney has called a “rupture”. The closing of the Strait of Hormuz, resulting in what the IEA calls the biggest energy shock in history, is highlighting the importance of security and diversity in the energy supply, and the harsh consequences for people and countries when they can't access or afford enough oil and gas. This is not just about people paying more at the pump. It is an omni-crisis that is affecting our transportation, manufacturing and food supply chains. Just about every human on the planet will suffer some consequences from the insufficient global supply of oil and gas.

Our allies are asking what Canada, the world's fourth-largest producer of oil and third-largest exporter of oil, can do to help. The answer is “not much”, except prepare so that we're in a better position the next time an energy crisis occurs, which is inevitable.

This crisis comes at a time when Prime Minister Carney has committed to making Canada an energy superpower, doubling non-U.S. exports, achieving data sovereignty, making Canada the fastest-growing economy in the G7 and spending 3.5% of GDP on defence. All those things are made possible by expanding the production, use and export of oil and gas. I would suggest none of them are possible if we don't.

The biggest limiting factor to expanding production and exports in the past decade has been overzealous climate policy. The policy put achieving our Paris Agreement commitments above all other economic, social and security goals. I would argue that the policy was most effective in making Canadian industry uncompetitive and

transferring industrial capacity and investment to nations with lower environmental standards. This phenomenon is known as carbon leakage and is well understood and documented by economists.

This leaves us with a dilemma. How can Canada do its part in reducing emissions to mitigate climate changes—which are observable and oftentimes harmful—while not making ourselves weaker and poorer with burdensome regulation and shifting production and capacity to our competitors and adversaries, with no resulting impact whatsoever on global emissions?

I suggest to you that industrial carbon pricing should aim at making Canadian industry the best, not the smallest. In general, almost all Canadian production of oil, gas and minerals is among the best in the world on environmental performance. This is owing to our high-quality resources, robust environmental standards and relatively clean grid. Sticking with oil and gas, it is well acknowledged that Canadian LNG is among the least carbon-intensive in the world. While our heavy oil rarely gets credit, it too is far less carbon-intensive than crudes from other heavy oil producers like Venezuela, Mexico and Iraq. Refineries that need heavy oil need heavy oil. If they don't get it from Canada, they'll get it from dirtier sources.

According to Statistics Canada, emissions in the Canadian oil and gas sector peaked in 2014, even as we've added the equivalent of over two million barrels a day of production. The sector knows how to reduce emissions intensity and is doing it. Certainly, Alberta's industrial carbon pricing helped with this. Alberta was the first jurisdiction in North America to introduce an industrial carbon pricing scheme in 2007. It has undergone some iterations. The TIER system is not perfect, but it's pretty good. There has been talk of significantly changing that framework and making Canadian industrial carbon pricing more expensive and more stringent. The discussion paper lobbied by Environment and Climate Change Canada in December is the most concrete example of this.

I cannot understand why, in the middle of so much crisis and so much opportunity, Canada would do this to itself. Why would we deliberately make ourselves weaker and poorer? I strongly recommend that the federal government stop making our oil and gas and other energy-intensive and trade-exposed industries less globally competitive. It wasn't ever a good idea, but it is an especially bad one now. Alberta has a system, TIER, that works to find a balance between economic growth and reducing emissions. Let's not fix what isn't broken.

Thank you for your attention. I look forward to questions.

• (1225)

The Chair: Thank you, Ms. Exner-Pirot.

We will now turn to Mr. Clark for five minutes.

Jason Clark (Vice-President, New Economy Canada): Thank you, Madam Chair.

Good afternoon. Thank you for this opportunity. My name is Jason Clark, vice-president at New Economy Canada. We're an alliance of more than 70 businesses, labour organizations and indigenous partners. Together we represent over 485,000 workers and over \$200 billion of annual revenue across such emerging and traditional sectors as manufacturing, electricity, mining, construction and clean technology.

What unites this diverse group is a shared focus on growing Canada's economy, creating well-paying jobs and ensuring that Canadian companies can compete and win in a rapidly changing global market. A clear, predictable industrial carbon price is the most economically efficient policy to underpin Canada's climate competitiveness while reducing risk for private investment at a time of unprecedented global trade uncertainty. It also drives innovation, reduces pollution over time and offers flexibility to provinces and territories. Carbon pricing works because it lets markets find the lowest-cost path to emissions reduction across the economy. A strong, predictable carbon price is a competitiveness benefit, not a cost burden. It allows Canadian companies to stay competitive in a global economy that is already pricing carbon at the border.

Today I'd like to focus on how a strong and predictable industrial carbon price signal supports three things: policy certainty and durability, access to global markets and cost-effective innovation.

First, on policy certainty, this moment of geopolitical tensions and shifting supply chains is driving investors to look for stable, predictable jurisdictions where they can deploy capital with confidence. We can crowd in investment and build major projects faster by providing policy certainty. A clear industrial carbon price is a central part of that. Alberta, as we've just heard, has had an industrial carbon price system in place since 2007. The federal OBPS has built on that approach. Looking ahead, securing an agreement between the Province of Alberta and the federal government on a ramp-up to a minimum effective carbon credit price of \$130 a tonne is an important step for ensuring investor certainty and confidence across the country. The details of the future MOU matter.

Second, on access to global markets, Canada's economy is trade-dependent. All of our top 10 non-U.S. trade partners have a carbon pricing system. That includes middle powers like Germany, Japan

and Brazil. Put another way, countries representing two-thirds of the world's GDP have adopted pricing systems. The European Union's carbon border adjustment mechanism, CBAM, is one clear example of a policy that is prioritizing goods from countries with strong domestic carbon pricing systems. Going backwards on carbon pricing will put Canadian companies at a disadvantage in precisely the markets we are trying to grow them in.

Third, this policy drives innovation. Industrial carbon pricing is an effective market-based mechanism that allows businesses to determine the lowest-cost path to reduce emissions and sends a market signal for innovative solutions. It also generates revenue that can be recycled back, helping sectors remain competitive and powering electrification and growth. For example, the decarbonization incentive program is already supporting 53 clean energy projects with \$874 million.

Enhancing industrial pricing systems across the country can strengthen our competitive advantage even further. There are three practical steps governments can take. First, enhanced federal-provincial-territorial collaboration is essential. Second, expand and better integrate carbon credit trading across jurisdictions. Finally, implement financial mechanisms that strengthen credibility and trust to help de-risk major projects and accelerate investment, such as carbon contracts for difference or a price floor mechanism.

In closing, New Economy Canada's alliance supports a strong and predictable carbon pricing system, because we see it as a key driver of investment certainty and a cornerstone of Canada's competitiveness in a rapidly decarbonizing global economy. The global economy is moving. Building Canada as an energy superpower presents the opportunity to become one of the most climate-competitive jurisdictions while remaining flexible enough to ease global competitiveness concerns.

Thank you for your time. I look forward to your questions.

• (1230)

The Chair: Thank you very much, Mr. Clark.

We'll now turn to questions from committee members.

Ms. Anstey, you have six minutes.

Carol Anstey (Long Range Mountains, CPC): Thank you, Chair.

Thank you to the witnesses for appearing.

Dr. Exner-Pirot, I appreciated your opening comments with respect to both the moment we are in and the Prime Minister's commitment to make Canada an energy superpower. Can you speak to how this industrial carbon price might potentially compromise or undermine our ability to be an energy superpower?

Heather Exner-Pirot: We're obviously at a time when we need to attract a lot more investment if we want to expand our alliances with Asian countries. The Prime Minister has been to China, Japan and India to talk about sending more oil, natural gas and propane. You have to attract tens of billions of dollars of investment, maybe even more than \$100 billion, here in Canada to fill up those potential pipelines.

It is true that investors will not want to come here if they aren't getting a meaningful return on investment and they look at the industrial carbon price. The uncertainty right now of not knowing what the industrial carbon price is going to be and of not knowing where we're going to go with the Alberta MOU is absolutely deterring that. They say that every day. People can say, you know, this industrial carbon price will make things more certain or will make us more competitive, but all the major industry associations and companies are saying it's not; it's making them less competitive.

I would suggest that to absolutely take advantage of this moment and provide more Canadian product into markets, we need to keep competitiveness foremost.

Carol Anstey: Thank you for those comments.

In that same vein, could you speak to carbon leakage as a result of this policy?

Heather Exner-Pirot: I will—and I hate to talk about this while Ross McKittrick is on the line, because he's an expert in this.

Absolutely, the idea is that in the western world for the last several decades, where we've been preoccupied with lowering emissions and the Paris Agreement, an observable effect is that, while we lowered emissions or reduced energy-intensive manufacturing industries in our countries in North America and in Europe, the consequence was that those industries offshored and went to other countries that had lower standards. The obvious outcome was that China gained industrial capacity—that's obviously now a security issue—and we have lost that investment in that manufacturing capacity.

It is very critical that, in our climate policies, we balance that competitiveness and maintain some kind of minimum ability to retain manufacturing in Canada, to have defence industrial capacity in Canada and to produce some of the minerals and the energy that the rest of the world needs. There are very few countries, other than

Canada, that can export that kind of amount that makes a meaningful difference.

Carol Anstey: Thank you so much.

We had the CEO from OilCo here, at our last committee meeting, talking about this impact on the offshore sector. One of the things he spoke about was the complexity of our system and also the moving targets, and that modelling is then done by investors, based on worst-case scenarios. Is this something you also hear?

Heather Exner-Pirot: Absolutely. When they're trying to build a business case for whether they're going to invest or not, they aren't going to look at the spot price, in the middle of the Strait of Hormuz crisis today, and say, "Oh, at \$100, we can do all of these things." They're going to look at what they thought was going to be possible in January, what will happen if the strait issue gets resolved. They need to have a very conservative number for what they think oil will be and what they can sell it for in order to decide whether to go ahead with that final investment decision, realizing, of course, that they have to get a return over many years. It's not just one year of an oil shock when prices are high; they have to think, "What will the price and the return be over the next 10 to 20 years?"

Having additional things that Canada puts on top but that our competitors do not is considered a risk, and it gets built into the price. Every time that price goes up, the opportunity for new production and more FIDs gets lower.

No one is saying that we should do nothing, but, absolutely, incrementally—and Professor McKittrick pointed this out—the higher that industrial carbon price goes, the more barriers that go on top, the fewer projects and the fewer jobs we'll get in Canada.

Carol Anstey: Thank you so much.

I'd like to direct a couple questions to Fertilizer Canada. I'm wondering whether you could also speak to carbon leakage and what that practically means for Canada's fertilizer industry.

Nadine Frost: The scenario in the fertilizer sector, as we described, is that we are competing against a lot of other jurisdictions that don't have a comparable carbon pricing system in place. Our main competitors, when we're looking at the production of potash fertilizers, are Russia, Belarus and China. When we're looking at nitrogen fertilizers, it's a lot more diverse, but, again, Russia, the U.S. and China are big players.

Part of the analysis we did last year with PwC was to look at those jurisdictional competitiveness risks. In the case in which we have a rising price on carbon and a rising cost of production here in Canada, other jurisdictions that don't have those added costs but have comparable incentives to bring fertilizer production in or to decarbonize existing production are where we're really seeing a lot of those investments fall. It's a real risk and it's a slow risk. It's a lagging indicator of a lot of these policies, but it's something we're certainly keeping close tabs on.

• (1235)

Carol Anstey: Thank you.

Quickly—and this is my last question—do you have real-world examples of instances in which the carbon price got too high, and then it had a negative impact on your industry?

Nadine Frost: Perhaps one of the easiest examples is the lack of investment we've been seeing in Canadian fertilizer production, in terms of being able to decarbonize. We're seeing a lot of investment right now going to the States, and not a lot coming into Canada, in terms of major projects.

The Chair: Thank you very much.

We will now go to Mr. Grant for six minutes.

Wade Grant (Vancouver Quadra, Lib.): Thank you very much.

Thank you to the witnesses for providing testimony.

Mr. Clark, in your testimony, you talked about New Economy Canada bringing together labour, business and indigenous leaders, as they focus on Canada's economic transition. You also talked about the importance of a clear, strong and predictable industrial carbon price. Could you elaborate further on what a clear, strong and predictable carbon price would actually do for their investment decisions?

Jason Clark: Sure, I'm happy to do that

We look at a predictable carbon price as a competitiveness strategy and not a cost burden. When global investment is increasingly flowing towards low-carbon jurisdictions—last year the annual investment in the clean transition was over \$3 trillion—this is a significant opportunity for the country, particularly when the Prime Minister is seeking to secure over a trillion dollars in investment into our economy.

The way we see it, decarbonization investments are really productivity investments. We've seen examples of that in the steel and cement sectors. I believe you heard that from the cement sector at your last meeting. The industrial price signal is designed to incent avoidance and encourage exactly those types of productivity investments that we've seen in those two sectors.

Wade Grant: Thank you.

When investors are deciding whether to build a clean steel facility or a net-zero cement plant in Canada versus another jurisdiction, what factors matter most and where does industrial carbon pricing fit into that calculation?

Jason Clark: I wouldn't want to speak on behalf of those specific sectors. I would point to work that has been done by Clean Pro-

perity. There was a survey of heavy industrial facilities that found the majority of those under the OBPS.... Actually, for the facilities that were exposed, it had a positive impact or no impact on their profitability, their capital spend and competitiveness.

The challenge that we see is uncertainty impacting this long-term investment. Things like having a rapid conclusion of the negotiation around the Alberta-federal government MOU to give certainty to investors is a significant, important step forward.

Wade Grant: If pricing industrial pollution sends a market signal to industry that invests in clean technologies, they'll cut their emissions. It also sends a signal to innovators to develop those technologies.

What would a strengthened system mean for clean technology investment in Canada?

Jason Clark: I think there are a number of opportunities there. When we look at how the system across the country could be enhanced, we really look at three things. I mentioned improved FPT collaboration. I think we've seen positive developments there with the streamlining of regulatory approvals, the "one project, one review" agreements that have been signed across the country. Business needs that certainty, not only around expanding the carbon credit trading market, which is significant, but also, as we and other witnesses have talked about, around implementing financial mechanisms that give that certainty. Whether they are carbon contracts for difference or a price floor mechanism, this is really important for making those decisions, both in traditional and emerging sectors, I would say.

The last thing to note that we've seen the government move on—and we saw this in budget 2025—is that a clear industrial carbon pricing signal isn't the only consideration. What we've seen with the clean economy investment tax credits is not insignificant. That is quite an important piece across a range of sectors. It is a significant incentive as well.

• (1240)

Wade Grant: Let me shift a little bit, Mr. Clark. Some of our trading partners in the EU, the U.K. and now maybe even others are introducing border carbon adjustments of their own.

For Canadian companies looking to export to those markets, what is the commercial significance of Canada's maintaining a credible, internationally recognized industrial carbon price?

Jason Clark: That's a great question.

Recent analysis by BloombergNEF found that Canada is among a small group of exporting countries quite well positioned under the European Union's CBAM. That really underscores that a strong domestic carbon price helps Canadian goods move easily into these markets, often with fewer additional costs at the border. That does create a real competitive advantage.

Wade Grant: If Canada were to weaken or eliminate its industrial carbon price, what would that signal to the major industrial investors and clean economy companies that New Economy Canada works with?

Jason Clark: We would view it as a negative signal.

The Chair: Thank you much.

[*Translation*]

Mr. Bonin, you have the floor for six minutes.

Patrick Bonin: Thank you, Madam Chair.

Mr. Clark, in your opinion, is Canada competitive when it comes to the energy transition and job creation in future-oriented sectors? If carbon pricing were to be weakened, would that harm this competitiveness?

[*English*]

Jason Clark: Do you mean the competitiveness of the energy sector or broadly across the economy? My apologies.

[*Translation*]

Patrick Bonin: I am talking about competitiveness in the deployment of infrastructure, future technologies and job creation in the so-called clean energy sectors.

[*English*]

Jason Clark: I've talked a little bit about how I think there are significant opportunities in those decarbonization investments. Like I said, you've seen this in the steel and cement industries, where those investments that enable those facilities to avoid an industrial price—where the policy is indeed doing what it should do—are really driving and enhancing productivity in those industries and sectors. They lower emissions and improve the efficiency of these plants and facilities, and enable them to carry forward their businesses.

[*Translation*]

Patrick Bonin: If there were no industrial carbon pricing, or if it were not high enough, could we lose investments in the clean economy here in the country?

[*English*]

Jason Clark: One of the things I pointed to is that Alberta has had an industrial price since 2007 and we've had the federal OBPS since 2019. Businesses have been making investment decisions based on this policy reality. I think what we're looking at now and what businesses are trying to see is a clear level of certainty that this policy had durability and will go forward. I think this is a key part of the negotiations of the Alberta-Canada MOU, which should establish an effective carbon credit price of \$130 a tonne. The question, of course, will be over what period of time that will be and whether the price will be raised beyond that, but these are questions that businesses are looking for.

As I mentioned, there continues to be an opportunity to enhance these systems, to make some of the improvements that I highlighted, and to ensure.... I'll talk to one opportunity, which is that when the OBPS was launched in 2019, the federal government undertook a review process, a sector-by-sector competitiveness analysis. Considering the state of the world and where we are right now, I think it

would be an opportunity for the federal government to undertake that analysis again as it looks sector by sector and to see the shifting landscape.

Again, our focus would be on creating that certainty over the long term while also ensuring that our Canadian sectors that are critical to the economy, such as fertilizer, remain competitive now.

• (1245)

[*Translation*]

Patrick Bonin: Let's suppose the government conducts a sector-by-sector analysis. Do you think there should be a periodic review every few years, or something like that?

[*English*]

Jason Clark: That's a great question.

I would say there's always an opportunity to enhance and improve those systems moving forward. The world doesn't look like it did in 2019. I think those sector-by-sector competitiveness analyses were important to setting the benchmark, so having a review at this point would be prudent. They just undertook that federal benchmark analysis and there are ongoing discussions around the MOU, so that is a potential opportunity to continue to enhance the system and improve those systems.

[*Translation*]

Patrick Bonin: Would a review every five years be desirable?

[*English*]

Jason Clark: I wouldn't necessarily peg a specific year to it, but that would seem realistic.

[*Translation*]

Patrick Bonin: Okay.

The government says it will continue to increase the carbon price after 2030. Can you explain to us how important it is for this amount to continue to increase after 2030? Do you have a recommendation regarding the order of magnitude?

[*English*]

Jason Clark: I wouldn't have recommendations in terms of the price that it should be set at, but we would see it as prudent if it is going to be extended beyond 2030, and I think that would enable us as we track towards a net-zero economy. We should be quite clear and transparent about it, and that should be set on a longer-term basis, yes.

[*Translation*]

The Chair: Thank you, Mr. Bonin.

[*English*]

We'll now turn to Mr. Leslie for five minutes.

Branden Leslie: Thank you, Madam Chair.

I'd like to start with you, Professor McKittrick.

You mentioned that, in theory, the carbon tax could be the most efficient mechanism to reduce emissions, but you also mentioned that the command-and-control policies, I believe, being stacked upon that policy make that no longer the case. In a Canadian context, can you outline what those specific policies are that are reducing the efficiency?

Ross R. McKittrick: It would be policies like the emissions cap on the oil and gas sector, the EV mandate, renewable energy mandates, the sector-specific policies, the methane rule and also the clean fuel standard.

The emissions reduction plan, remember, had about 200 policy measures in it, and the carbon tax was one. Our policy mix in Canada tends to be much more heavily focused on sector-specific measures. Once those are in place, we lose all the advantages of carbon pricing.

Branden Leslie: Thank you.

You mentioned the study that you worked on. Thank you for that. If you could send it in to make sure the analysts include it in our report, it would be appreciated.

I'd like to move over to fertilizer. My understanding is that there has not been a new nitrogen plant in this country in nearly 30 years. You outlined your concern as competitiveness, as a real threat within the Canadian context. The reality is that if we hadn't had the Haber-Bosch process discovered, the population would be nowhere near what it is today.

You mentioned fertilizers being involved in feeding half of the world's population. I have no interest in being the decider of which 20% less or which half of the world is going to go hungry if we're going to go down a path of removing the use of fertilizer across the world here.

You mentioned carbon leakage and the fact that, depending on the specific type of fertilizer produced, we have 30% to 50% less emissions intensity in the production. In reality, what does that mean for global emissions if we make it so uncompetitive for our producers of fertilizers in this country to set up shop that they end up moving to another country? What does that do to global emissions?

• (1250)

Michael Bourque: It depends on what the emissions profile is of whatever plant is built and where that's built. Currently in the nitrogen world, there are a lot of plants being built in the United States. They are benefiting from the accelerated capital cost allowance there, where it's a 100% writeoff in a year. That was in the big, beautiful bill, as well as tax credits, but they're also building these plants to be competitive on a carbon basis, and they will be able to access those markets that do have strict carbon measures.

That's an example of where it will be state of the art, but on the other hand, if you look at something like the potash competition, where we are a significant producer, our competition includes Russia, Belarus and China. In particular, Russia and Belarus do not, by the way, have tariffs going into the United States and do not produce with any regard for emissions reduction. This is where we talk about leakage. Any additional costs that are imposed on our industry risk that kind of leakage in the face of that competition.

Branden Leslie: Can I get you to expand on the need for domestic production? We're obviously seeing cost fluctuations due to the situation in Iran, but in purely logical terms, from a food sovereignty perspective, there's the value of keeping fertilizer production in our country, as opposed to policies implemented in the EU, which has seen closures there, with high energy prices.

We have abundant natural gas and we have all of the essential elements to ensure we have sovereign food production. Can you speak to the importance of that in the Canadian context?

Michael Bourque: Well, I don't think we should be protectionist, because we are both importers and exporters of fertilizer. We import all of our phosphate-based fertilizers, and we export potash and some nitrogen-based fertilizers. In Europe, as you mentioned, they became uncompetitive and had to shut down a number of nitrogen plants, which is a shame, since they invented it.

Branden Leslie: Thank you.

Dr. Exner-Pirot, is this tax cutting emissions, or is it making it more expensive to build things in Canada?

Heather Exner-Pirot: At some level, it might promote some innovation. We have seen that the oil and gas sector has cut emissions. The concern is that increasing it to \$130 on an effective tonne will do very little to cut emissions, certainly in oil and gas, and in electricity in particular. It will just get passed on to the consumers, or it will be lost production. Again, the carbon leakage will happen somewhere else.

For electricity, there was a carbon price in Alberta. I interviewed them and wrote a paper. Any additional industrial carbon price they expect on electricity in Alberta, for example, will be completely passed on to the consumer. It would have to be \$170 or \$200 per tonne to stimulate new investment, for example, in a different technology.

The Chair: Thank you very much.

We will now turn to Mr. Greaves for five minutes.

Will Greaves: Thank you, Madam Chair.

Good afternoon to our witnesses. Thank you for joining us today.

I would like to direct my first questions to Professor McKittrick.

Professor, you identified yourself as having a Ph.D. in economics from the University of British Columbia. Could you please clarify if any of your academic training at either the graduate or the undergraduate level was in a field outside of economics?

Ross R. McKittrick: I have an undergraduate degree in economics from Queen's University, and I have a master's degree and a Ph.D. in economics from UBC.

Will Greaves: You're certainly a well-qualified, formally trained economist. You are perhaps well known in certain circles for your views that are outside the realm of economics and in the realm of climate science. Could you clarify, for the committee, your training in the physical or natural sciences that informs our understanding of human impacts on the global biosphere and climate system?

Ross R. McKittrick: I have extensive training in the field called econometrics, which is applied statistics for things like time series analysis. I've been involved in projects that have led to publications in peer-reviewed science journals and that have contributed to the statistical analysis of climate data.

The field of climate econometrics is quite a large field now. My colleagues and I publish a lot in physical science journals because the tools we have in econometrics are directly applicable in climate datasets as well.

• (1255)

Will Greaves: Thank you for that clarification.

One of your well-known, recent outputs was the review of climate policy in the United States, which was conducted for the U.S. Department of Energy. Could you elaborate on some of the criticisms of that study? Are you aware of concerns with the report's findings, which have been provided publicly or released in various forms by other climate and natural scientists?

Ross R. McKittrick: I'm very familiar with them. That was a draft report put out for public comment. Unfortunately, there was a lawsuit filed against the Department of Energy because of some technical, procedural errors in the setting up of our group. As a result, our work was suspended on September 3. The group has gone through all these criticisms and has prepared response materials, but we are forbidden by court order from publishing them.

Yes, I am familiar with the criticisms. There are some legitimate errors in the report, which we want to correct, but there are also many aspects of the report that will be strengthened when we are able to publish the revised version.

Will Greaves: Thank you for that clarification. It's good to hear that the authors are prepared to address at least some of the 114 public criticisms of the scientific content of that report.

Professor McKittrick, you testified before this committee, 21 years ago this month, on a loosely related topic—climate change policy. In that testimony, you stated that climate change has “positive...impacts” for Canada, particularly with respect to the forestry and agricultural sectors. I'm wondering if the experience and evidence of the last 21 years have changed your views on either of those sectors and how they've been impacted by climate change.

Ross R. McKittrick: I haven't done original work in forestry and climate impacts, but I'm familiar with the work of others. In general, northern latitude countries, like Canada and Russia, are still expected to be net beneficiaries for agriculture and forestry as a result of climate change.

The fifth assessment report of the IPCC made this particularly clear for forestry. Recent studies that I have seen, including in Nature magazine, continue to say that Canada, overall for agriculture, will experience net benefits from a longer growing season, warmer

conditions and generally favourable conditions for crop types that aren't necessarily sustainable in our climate now.

Will Greaves: There are competing perspectives of the impacts of climate change on agriculture production, and many of those perspectives are borne out by evidence we have of sustained drought conditions in this country. As of the fall of 2025, in fact, 85% of Canada's agricultural lands were under drought conditions. I think that suggests there may be a more focused lens that we might bring to the question of how agriculture will be negatively impacted by the aggregate impacts of climate change, not just by the increases in the average global temperature.

With respect to the questions around the impacts of climate change on the forestry sector... This has had great impacts and been of concern in my home province. In five to 10 seconds, would you be able to comment on how you see the forestry sector benefiting from increased global temperatures?

Ross R. McKittrick: It's partly from temperatures, but it's also from the increased CO2 concentration in the air, which is a direct benefit to forest growth.

The Chair: Thank you very much.

[Translation]

Mr. Bonin, you have the floor for two and a half minutes.

Patrick Bonin: Thank you, Madam Chair.

Mr. Clark, do you believe that fossil fuel subsidies undermine the effectiveness of industrial carbon pricing? Do they hinder the deployment of clean energy technologies and infrastructure?

[English]

Jason Clark: Thank you for the question. However, our organization and our alliance don't focus on the oil and gas sector. I wouldn't be able to comment on that. I think there are others who are better placed.

[Translation]

Patrick Bonin: In your view, the fact that the government subsidizes fossil fuels has no effect on the effectiveness of carbon pricing.

• (1300)

[English]

Jason Clark: The oil and gas sector is just not an issue that we work on.

[Translation]

Patrick Bonin: Very well.

Does that take money away from the deployment of clean energy, for example? Does it create competition? Does it create economic inequality if one sector is funded and the other isn't?

[English]

Jason Clark: What we've seen, and we've certainly advocated for this, is the delivery of the clean economy investment tax credits, ITCs. One piece that I would highlight, which we've also advocated for, is the extension and expansion of those ITCs. I think that is an important and productive—

[Translation]

Patrick Bonin: Thank you, but that wasn't really what my question was about.

You published a report in which you mention that Canada is falling in the global rankings for investments in the energy transition, while Saudi Arabia is skyrocketing. Can you explain that to me briefly?

[English]

Jason Clark: Were you referencing Canada's clean energy investment?

Patrick Bonin: The transition investment.

Jason Clark: It's the transition investment.

What we saw last year, according to BloombergNEF, was a decrease. Canada dropped out of the top 10 in those investments last year. In part, that was due to the removal of the subsidy around electric vehicles, which has been reinstated. We hope that Canada returns to the top 10 next year.

It's a very significant opportunity. As I mentioned, it's \$3 trillion annually globally. We believe Canada is incredibly well-positioned to capture some of that, not only in things like clean electricity, which this committee has heard and thought a lot about, but—

The Chair: Thank you, Mr. Clark.

[Translation]

Thank you, Mr. Bonin.

[English]

We will now go to Mr. Bexte for five minutes.

David Bexte: Thank you, Chair.

Thank you, witnesses. I appreciate your contributions today. I hope we all benefit from them.

I'll start with Dr. McKittrick. I wonder if you could comment a bit, even though we've heard testimony from the Climate Action Network casting aspersions on your model and there's some dismissiveness of the notion of carbon leakage.

What portion of our trade economy do you think—I know you're not Stats Canada—is with countries that have no carbon pricing? Between our competitors and our customers, how are we exposed to the globe?

Ross R. McKittrick: I don't have specific numbers off the top of my head, but as a general rule, about 75% to 80% of our exports go to the U.S. It's not the case that the U.S. has no climate policy or no

carbon pricing. Some jurisdictions do, but nationally, they do not. Likewise, with countries in Asia, like India and China, if they have carbon prices, they are at a mid de minimis level.

In Europe, there is a much higher carbon pricing system. The U.K., Germany and the other participants in the European emissions trading system have comparable carbon pricing systems, although the prices in the European system were very low for a long time. It wasn't all that big a deal.

Off the top of my head, I would say about 80% of our trade goes to countries that don't have meaningful carbon pricing.

David Bexte: Could you comment on how there's a desire to align our economy with trade with jurisdictions that have some sort of carbon border adjustment mechanism, which makes us purely uncompetitive compared to all of these other jurisdictions? More than 90% of our trade exposure doesn't care, but we're....

Can you comment on that paradox?

Ross R. McKittrick: Suppose that we didn't have this carbon pricing system and we paid the full cost of carbon border adjustment mechanisms for those jurisdictions that have imposed them. How would that compare to imposing the carbon pricing system on ourselves for all of our exports? I suspect that even if we ate the cost of the carbon border adjustment mechanism, it would still be less costly for us.

The other point that I would make is that we hear a lot of references to places like Germany and the U.K. We have to ask if we really want to emulate their experience with deindustrialization, because there are certainly problems in those countries where they've moved out of step with their major competitors, including in Asia. As a result, it's this leakage problem all over again. Emissions don't go down. They just move to different jurisdictions. Domestically, you incur a lot of reductions in your standard of living.

• (1305)

David Bexte: I appreciate that. The standard of living of Canadians will suffer because of that. Thank you.

I'd like to turn to Fertilizer Canada. Our time is running short, so I'll be really succinct.

Scarcity is an issue in all economies in every part of the world, but particularly in North America and Canada. In the agriculture sector, fertilizer inputs are important, especially this time of year with seeding starting. I know there's a lot of anxiety with inputs right now.

To what degree are we a net importer or exporter of urea and other products like that? We manufacture them here, but we export some and we also import a lot. How does that control the price?

How exposed is our industry because we are not replacing plants and infrastructure to manufacture them ourselves for domestic security?

Nadine Frost: I'll take that one. Thanks.

From a nitrogen fertilizer perspective, Canada exports about 35% of what we produce—predominantly to the U.S.—but we also import a fair share. Eastern Canada is quite exposed to imports.

In terms of the global pricing dynamics of nitrogen-based fertilizers, we are trading on a global commodity market. We are price-takers, not price setters.

David Bexte: Are the industrial carbon tax and these carbon pricing mechanisms and schemes stifling the building of new plants and infrastructure in Canada?

Nadine Frost: It's hard to tie the two together directly. I would say the overall capital investment needed to bring a new nitrogen production facility online is very significant. It's in the billions of dollars. The last time a nitrogen fertilizer plant came online in Canada was in 1992.

David Bexte: With big trade with the U.S. in urea, especially, among the products, their having no carbon pricing really curtails our proponents.

Thank you very much. The time is up.

The Chair: Thank you very much, Mr. Bexte.

Finally, to wrap up the industrial carbon study that he proposed is Mr. St-Pierre. The floor is yours for five minutes.

Eric St-Pierre: I'd like to thank the committee for studying this really important climate policy. This request to study the industrial carbon price came out last November. I'm glad we're wrapping up this study, and I'm really excited to see what the recommendations will look like.

Thank you to everybody for contributing. Thank you for coming today as witnesses.

I have a question for Fertilizer Canada around hydrogen and ITCs. I'm wondering if you can elaborate on what it would take to make clean hydrogen. I'm thinking green or blue, or whichever colour you want to discuss...hydrogen to ammonia production. Discuss the link to the ITCs.

I think Fertilizer Canada has been supportive of some of the ITCs, but if you could unpack that a bit, it would be appreciated.

Nadine Frost: Absolutely. Yes, we've been generally supportive of this suite of clean economy ITCs, but we've been critical of the scope and the timelines in which they're being applied. For many of these projects, like a clean hydrogen project, for example, there's been a lot of interest in that space in the last number of years and not a lot of projects that have been able to reach final investment decision.

Clean hydrogen and clean ammonia are sisters, essentially. If we have a clean ammonia story to tell, it's not coming to Canada right now. What we're seeing is that some of those investments in lower carbon and clean ammonia are generally going to other jurisdictions, such as the U.S., where they have production-based tax incentives.

Right now, specifically to the clean hydrogen ITC, it's unworkable. The CCUS ITC has more potential, but we would look for it to be expanded in scope and timeline.

Eric St-Pierre: Mr. Clark, thanks for attending today.

Could you comment on whether industrial carbon pricing is one of our most effective mechanisms or tools for reducing emissions and combatting climate change?

Jason Clark: While emissions reductions and climate aren't the focus of our organization, I think the research is pretty clear that the momentum on emissions broadly across the economy is trending in the right way. The industrial price is one of the most effective mechanisms, if not the most effective mechanism, we have to reduce emissions.

• (1310)

Eric St-Pierre: I believe you mentioned that New Economy Canada has over 70 members and that you represent close to half a million workers across Canada.

Jason Clark: That's right.

Eric St-Pierre: That's very significant. It reminds me of the energy efficiency sector as well, which represents around half a million workers across the country and benefits all of our ridings.

Are all of your members of New Economy Canada supportive of industrial carbon pricing? If so, why?

Jason Clark: I think, broadly speaking, the answer is yes. That said, I think it's also important that the policy has flexibility.

I talked about the opportunity around a competitiveness analysis at this point. The system is intentionally designed so that it doesn't bear major costs on industrial emitters. That said, there are those among our partner organizations that are challenged right now. I wouldn't put the point on industrial pricing, but those tariff-impacted sectors are particularly challenged right now and could look at support in other ways.

Eric St-Pierre: Earlier in your testimony, you mentioned three key points. One is policy certainty. An industrial carbon price is good for access to global markets. You mentioned Germany, Japan, Brazil and other countries. Some have a carbon border adjustment mechanism. You also mentioned that an industrial carbon price helps drive innovation.

I have one minute left. Could you comment on how Canada adopting a robust industrial carbon price would actually allow us to thrive economically and have access to global markets? If you could unpack that second point, it would be great.

Jason Clark: What we've seen is that there are already billions of dollars of low-carbon investments across the country. Those investments that have been made or are looking for an FID are banking on the existence of an industrial price. I point to some research that was done by the Canadian Climate Institute on more than 70 projects in industrial and natural resources that have a combined value of \$57 billion and are banking on the existence of a price. It's not insignificant.

Thank you.

The Chair: Thank you very much. That ends our time for today.

Thank you very much to all of the witnesses for coming and participating. We really appreciate it.

As a reminder, our next meeting will not be on Tuesday. It'll be on Thursday at 11 o'clock next week.

Thank you so much.

We're adjourned.

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