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Chair: The Honourable Judy A. Sgro





## Standing Committee on International Trade

Tuesday, November 22, 2022

• (1105)

[English]

**The Chair (Hon. Judy A. Sgro (Humber River—Black Creek, Lib.)):** I am calling the meeting to order. This is meeting number 38 of the Standing Committee on International Trade.

Welcome to our committee, members and replacements. It's nice to see some other faces at the table as well.

Today's meeting is taking place in a hybrid format, pursuant to the House order of June 23, 2022, and therefore members are attending in person in the room and remotely by using the Zoom application.

I need to make a few comments for the benefit of witnesses and members. Please wait until I recognize you by name before speaking. When speaking, please speak slowly and clearly. For those participating by video conference, click on the microphone icon to activate your mike, and please mute yourself when you are not speaking.

With regard to interpretation, for those on Zoom, you have the choice at the bottom of your screen of either floor, English or French. For those in the room, you can use the earpiece and select the desired channel.

I remind everyone that all comments should be addressed through the chair. For members in the room, if you wish to speak, please raise your hand. For members on Zoom, please use the "raise hand" function. The clerk and I will manage the speaking order as well as we can, and we appreciate your patience and understanding in this regard.

Please also note that during the meeting it's not permitted to take pictures in the room or screenshots.

Madam Clerk, can we just verify with our translator that everything is in good shape? Is everything is fine with the translators?

Thank you.

In accordance with the committee's routine motion concerning connection tests for witnesses appearing by video conference, I am informing the committee that all witnesses completed the required connection test in advance of the meeting.

Should any technical challenges arise, please let me know. If necessary, we will suspend for a few minutes in order to ensure that all members can participate fully.

Pursuant to Standing Order 108(2) and the motion adopted by the committee on Tuesday, September 20, 2022, the committee is resuming its study of the potential trade impacts of the United States Inflation Reduction Act of 2022 on certain firms and workers in Canada.

Today we have with us, by video conference, Geneviève Dufour, professor, Université de Sherbrooke, who is appearing as an individual; Ivette Vera-Perez, president and chief executive officer of the Canadian Hydrogen and Fuel Cell Association; and Derek Eaton, senior director, public policy research and outreach, from the Smart Prosperity Institute. In person with us here is Bob Masterson, president and chief executive officer of the Chemistry Industry Association of Canada.

Welcome to you all. Thank you for taking some time out of your schedule to share some of the knowledge and information you have with the committee.

Madame Dufour, I invite you to make an opening statement of up to five minutes. Go ahead, please.

[Translation]

**Ms. Geneviève Dufour (Professor, Université de Sherbrooke, As an Individual):** Thank you, Madam Chair.

Members of the committee, thank you for inviting me to appear today.

My name is Geneviève Dufour, and I am a professor of international law in the law faculty at Université de Sherbrooke. I specialize in international trade law.

I am delighted to be here today to discuss the U.S.'s Inflation Reduction Act of 2022. I commend the committee for studying the issue, since it doesn't seem to have garnered much attention in recent months despite the legislation's significant repercussions.

Having followed the committee's proceedings over the past few days, I felt it relevant to focus my remarks on the lawfulness or legality of the act vis-à-vis international trade rules. My understanding was that many of you wanted clarification on that.

[English]

Let's say it right away: The Inflation Reduction Act is clearly illegal under international trade rules. First, it violates the national treatment principle, which aims to avoid protectionist measures. It also violates the principle of most favoured nation treatments, which requires states not to discriminate among trading partners.

[Translation]

[Technical difficulty—Editor] I just said that—

[English]

**The Chair:** Can we just suspend for a moment?

I'm sorry, Madame Dufour, but we seem to have a problem.

I will suspend for a moment.

• (1105) \_\_\_\_\_ (Pause) \_\_\_\_\_

• (1110)

**The Chair:** Thank you very much, Madame Dufour.

Please start from the beginning again.

[Translation]

**Ms. Geneviève Dufour:** Would you like me to start over?

[English]

**The Chair:** Yes, please.

**Ms. Geneviève Dufour:** Shall I start from the beginning? Okay.

[Translation]

Good morning, Madam Chair. Thank you.

Members of the committee, thank you for inviting me to appear today.

I am an international law professor in the law faculty at Université de Sherbrooke, and I specialize in international trade law.

I am delighted to be here today. I commend the committee for studying the issue, because the U.S.'s Inflation Reduction Act of 2022 has significant repercussions but hasn't received much attention in recent months.

Having followed the committee's proceedings over the past few days, I felt it relevant to focus my remarks on the legality of the act under the international trade rule system. My understanding was that many of you wanted clarification on that.

[English]

Let's say it right away: The Inflation Reduction Act is clearly illegal under international trade rules.

First, it violates the national treatment principle, which aims to avoid protectionist measures. It also violates the principle of most favoured nation treatment, which requires states not to discriminate among trading parties.

[Translation]

The act also violates the Agreement on Subsidies and Countervailing Measures of the World Trade Organization, or WTO, because, in order for a taxpayer to qualify for the tax credit, the vehicle battery must contain 50% North American content by 2024, and 100% by 2028. As everyone knows, any subsidy contingent upon the use of local content is strictly prohibited under the agreement.

There is no doubt that the American act violates the basic rules of international trade, so the question is whether the U.S. can invoke an exception.

Some have cited protection of natural resources, which is an exception under international trade law. Too much information is missing to say whether the act would meet the threshold for that exception. We will have to watch how the U.S. implements the act. Nevertheless, we can start asking questions about certain aspects, including Canada's favourable treatment under the act and the fact that the act's protectionist restrictions could ultimately disadvantage electric vehicle production, which would be harmful to environmental protection.

[English]

One might ask whether the CUSMA allows the U.S. to favour Canada and Mexico. FTAs allow states to give each other tariff advantages and to work together to harmonize their practices and measures. Under no circumstances do FTAs allow a state to provide subsidies to companies to use domestic goods or goods from a state with which it has a free trade area.

Finally, the U.S. will probably try to justify this law in the name of energy security. They will therefore most likely want to invoke the national security exception, at least for the "foreign entity of concern" portion of the law. Analyzed quickly, this exception hardly applies to the law.

• (1115)

[Translation]

All the experts agree that the act contravenes the rules of international trade. Obviously, this isn't the first time the U.S. or another country has adopted legislation that violates the rules, but this legislation is unique for a number of reasons.

First, the act has a considerable scope. The stated purpose of the act is to restructure supply chains in the world's most powerful country trade-wise.

Second, the accepted aim of the act is protectionism, and the act's illegal nature is just as accepted. Everyone in the U.S. involved in drafting and passing the act knew—and knows—that it is unlawful under international trade rules.

Lastly, the unfriendly tone of the act sets it apart. That's how French President Emmanuel Macron described the act, calling on the European Union to wake up and pointing out that Europe's two major partners—powerful countries—provide government support to their industries. He said that Europe needed to respond.

Where are we headed? President Trump called out China for its illegal subsidies, starting a trade war that came under fire from all countries. Now we have President Biden passing a protectionist act that provides illegal support. It's highly likely that the world will react differently this time around. We could see escalating protectionism. What will international trade look like?

Above all, how will Canada, a country that has always advocated respect for the rule of law, position itself in this new landscape? That's a fundamental question because this act could have a major systemic impact on the multilateral trading system we value.

Thank you.

[English]

**The Chair:** Thank you very much, Madame Dufour.

Now we have Ms. Vera-Perez, please, for five minutes.

**Ms. Ivette Vera-Perez (President and Chief Executive Officer, Canadian Hydrogen and Fuel Cell Association):** Good morning, Madam Chair and members of the committee. Thank you for the invitation to speak here today.

My name is Ivette Vera-Perez. I am the president and CEO of the Canadian Hydrogen and Fuel Cell Association, or the CHFCA. We represent over 160 companies at all stages of the hydrogen and fuel cell supply chain. Our members export clean technologies to over 42 countries. These countries account for 65% of the world's population.

According to a recent study by Ernst & Young, hydrogen's total Canadian annual market potential could reach \$100 billion and create up to 350,000 jobs by 2050. That is in addition to the Government of Canada's estimate that the sector will assist with reducing Canada's emissions by 45 million metric tons annually.

With a 100-year legacy of industry and research expertise, Canada's hydrogen and fuel cell sector has until recently been a global leader in the space. However, unlike 100 years ago, we have competition for this leadership position. Countries around the world have rolled out policies and funding for the advancement of their domestic hydrogen and fuel cell industry. One of these policies is what has brought us together today: the United States' Inflation Reduction Act, or IRA.

The IRA contains several measures that make investing in the U.S. attractive. The investment and production tax credits for clean hydrogen and other incentives to produce clean technologies and clean energy, which are essential elements of the hydrogen supply chain, are all very attractive opportunities. These, in addition to the ease of use for companies accessing the measures and a very well-resourced regulatory approval process, add to the opportunity presented.

I am aware that Canada can't respond in kind to the U.S. IRA. We have a smaller market and different structure, but we have several measures in Canada that we could take that would better incentivize investment in our own domestic hydrogen industry.

The recent fall economic statement provided great news to the clean-tech sector, with a 30% investment tax credit, the ITC, for clean technologies and a 40% ITC for hydrogen technologies. These tax credits in addition to the creation of the Canada growth fund, which includes contracts for difference for hydrogen, will help incentivize domestic production of low-carbon hydrogen. As we work to gain clarity on the operational details around the hydrogen ITCs and the clean tech growth fund, there are several recommendations that I would like to share with this panel.

First, we should focus on rapidly deploying a fully functional and clear ITC, with clear guidelines on boundaries, eligibility criteria, processing timing and how these ITCs interact with other programs. This will give investors and project proponents much needed clarity as they develop their projects and secure financing.

Second, when exploring the potential of the clean hydrogen ITC in the fall economic statement, expanding the scope of this credit—at least in part—to apply to operational costs beyond capital costs could provide the flexibility needed to support companies in the industry.

Third, programs like the strategic innovation fund and clean fuels fund are great signals of the ambition the government has for Canada's clean-tech industry. The resource-intensive application process and long wait times are a deterrent to project proponents. We must commit to reasonable turnaround times for the SIF, CFF, CIB or any other future funding. Furthermore, we must consider how these programs and the ITC incentives interact with each other and help elevate each other.

This is a complex issue. Comparing the U.S. to Canada can seem like comparing apples to oranges, but that is a comparison that companies and investors in the sector make in their everyday decision-making.

In closing, Canada has always been at the forefront of the global hydrogen industry, but with the rapid development of the sector and our lack of action at home until today, Canada is falling behind. The fall economic statement is a solid first step to help us reclaim our leadership position. The devil, however, is in the details. We must invest smartly, heavily and rapidly to reclaim our leadership position in the hydrogen sector.

Thank you very much. I look forward to your questions.

● (1120)

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

We'll go on to Mr. Masterson for five minutes, please.

**Mr. Bob Masterson (President and Chief Executive Officer, Chemistry Industry Association of Canada):** Thank you, Madam Chair.

Thank you, committee members, for this timely and important study, and also for the opportunity to be before you in person today.

Chemistry and plastics is your third-largest manufacturing sector in Canada, with about \$90 billion in annual shipments. Eighty per cent of that is exported, and the vast majority of that is to the United States. In short, the United States is our largest customer, but it's also our largest competitor, both for market share and for investment share.

Globally, our industry is embarking on two simultaneous and major transformations: the transformation for a zero-carbon chemistry sector and the transformation for a circular economy for plastics. In short, it's no longer a question of environment policy; it's entirely a question of investment policy. The sector will invest. It will transform. It will do so rapidly. The only question is where those investments are going to take place.

I would like to start with some good news. After several decades without major new chemistry investments in this nation, we have two global-scale facilities that will enter commercial operation in 2023. That's some start-up good news, but also, in the last 18 months, we have had over 15 major project announcements in our sector worth more than \$30 billion of proposed new investments. Here's the interesting part. Every one of those investments is envisioned as net carbon zero from initial operation.

Those projects are largely in response to very aggressive investment attraction efforts from the Province of Quebec and the Province of Alberta.

I have to stress, though, that these are proposals only. Much work remains to turn them into final investment decisions and built infrastructure. My main message to you today is that indeed the U.S. IRA is a game-changer, and I can't imagine that there's not one of those projects that won't be re-evaluated from a due diligence perspective to see how the Canadian business case matches up with the new business case under the IRA in the U.S.

My second point is that it's not just those new investments that are at stake. In transforming our sector, we have about \$200 to \$300 billion of built chemistry infrastructure in Canada today, and to reach net zero, we have to recapitalize every penny of that in the next three decades. Our ability to do so will depend entirely on improving investment conditions in Canada.

Definitely, the IRA contains long-lived incentives. It covers all five of the pathways available to decarbonize the chemistry sector. All five of the pathways have various incentives available to them, and incentives can be stacked. They are already on top of major advantages that are in place at the state and federal level, and that includes accelerated capital cost allowances, which, unlike in Canada, are not going to start to fade away in 2023.

My final point is this: The true value of the IRA's incentives and the biggest challenge for Canada is the transparency and certainty provided to investors. I know you have heard a lot about carrots and sticks, but if you will allow me a seasonal analogy, I would say that all industries in Canada are on the naughty list. We pay a very steep and ever-steepening carbon price.

Some very fortunate few that do find their way onto the "nice" list get hand-picked access to federal grants, tax incentives, loans and other incentives to assist with decarbonization, but here's the thing: The criteria to get on the list are not transparent; they are not clear; and they are not available to everybody. That means that you can't build them into a business case, which puts Canada at a disadvantage.

In contrast, in the United States, no industry or company is on any naughty list; everybody's on the nice list. Everybody can look at the IRA and factor in these very real, very material, very accessible incentives into their business cases for proposed industrial decarbonization projects.

As time allows in questions, I would like to share further details that compare and contrast investment attractiveness for decarbonization of the chemistry sector in the U.S. versus Canada today.

Thank you again for this opportunity.

• (1125)

**The Chair:** Thank you very much. It's much appreciated, Mr. Masterson.

Mr. Eaton, go ahead, please, for five minutes.

**Mr. Derek Eaton (Senior Director, Public Policy Research and Outreach, Smart Prosperity Institute):** Thank you, Madam Chair and members of the committee, for inviting me here today.

My name is Derek Eaton. I am the senior director of public policy research and outreach at the Smart Prosperity Institute, which is a clean economy think tank housed at the University of Ottawa.

I'd like to acknowledge that I reside on the unceded traditional and ancestral territories of the Mississaugas of the Credit, the Anishinabe, Chippewa, Haudenosaunee and Wendat nations. We recognize the unique and enduring relationship that exists between indigenous peoples and their traditional territories worldwide.

The Inflation Reduction Act is positive for Canadian businesses because it provides more certainty about an economic decarbonization strategy for North America's largest economy. The range of measures included in the act are likely to weather political changes in the U.S., because they are part of what has been called a "new productivist agenda" for economic policy, focusing on well-paying jobs and diverse, inclusive growth opportunities in various regions of the United States.

The act does, though, put pressure on Canada to determine its economic place in the net-zero transition. Otherwise, we will see businesses and jobs move to the U.S. or not consider Canada as an attractive option.

As a small open economy, highly integrated with our large neighbour to the south, Canada cannot afford to take a passive approach to our economic transition, but this is largely what we have done. The government has created an array of incentives and funding mechanisms to encourage investment in clean energy and clean tech. The latest of these is the Canada growth fund.

However, the approach being taken is to generally leave it to market forces to determine where the best individual funding opportunities are. The problem with this approach is that it ignores what we know from history about how new economic clusters emerge and consolidate in areas of innovative technology.

The coordination of investment opportunities locally, regionally and up and down a value chain is critically important and requires a strategic approach to the identification of a pipeline of projects. Modern industrial policy is about this coordination, which, although challenging, is pursued by many of our major trading partners. Modern industrial policy differs from what has happened in the past, which has tended to focus on supporting individual companies with government subsidies instead of looking at how to support the growth of an industrial ecosystem.

Work by Smart Prosperity and The Transition Accelerator, as well as others, including the Canadian Climate Institute and RBC, has identified a number of Canada's top opportunity areas in the net-zero transition. These include electric vehicles and the battery supply chain; carbon capture, utilization and storage; biofuels, especially sustainable aviation fuels; hydrogen; alternative proteins; mass timber; critical minerals; and ag tech. These growth areas all present opportunities to transform Canada's legacy industries in oil and gas, forestry, mining, aerospace, agriculture and automotive manufacturing into world-leading climate solutions ecosystems.

How can Canada begin taking a more strategic approach as a response to the Inflation Reduction Act? The process can be boiled down to two simple action items.

One is to set bold and clear economic targets to guide strategy in priority opportunity areas. Canada should create net-zero competitiveness goals. "Goals" here means quantitative economic targets that refer to physical actions—improvement, production and deployment of technologies. "Net-zero" means indexed to the government mandates or our net-zero targets. "Competitiveness" means benchmarked to a vision of Canada's place in the global supply chains of 2030 and looking forward to 2050.

These targets must be supported by a clear supply chain strategy that seeks to build economic value in Canada while identifying export opportunities. The targets should be used to focus public funds and guide policy design at the sectoral level.

The second major action item is to create inclusive partnerships to foster strategic collaboration. Canada needs new forms of collaboration between first nations, government, industry, finance, universities and civil society. Collaborative forums here should not be talking shops but active working groups that set and revise targets, create strategy, seed projects and identify high-priority investments.

● (1130)

Brokers and independent intermediaries are crucial to the process of collaboration. It's important to empower independent voices that can provide expertise and help development projects. An independent agency of this type could be in government so long as it is insulated from politics and free from bureaucratic routines. Otherwise, it could come from civil society or it could be true public-private partnerships, organizations built for the purpose of catalyzing strategic collaboration for net zero.

I thank you for this opportunity. I look forward to your questions.

**The Chair:** Thank you very much, Mr. Eaton.

We will now move to Mr. Seeback for six minutes, please.

**Mr. Kyle Seeback (Dufferin—Caledon, CPC):** Thank you very much, Madam Chair.

I want to pick up on the opportunity Mr. Masterson gave to expand upon some of his comments.

You talked about how the investments for net zero must be massive investments. I think RBC says \$2 trillion between now and 2050, and \$80 billion a year. The government brags about the \$9 billion they've invested over the last three years. It's nowhere close.

You talked about the IRA having five pathways for investment in your industry in order to get to those net-zero goals. What are those five pathways that they're investing in? Is Canada coming close to matching them?

**Mr. Bob Masterson:** Just to be clear, the chemistry sector has five pathways to decarbonization, and the IRA covers all of those—plus, plus, plus.

If you talk about those individually, you can start with hydrogen production and utilization. For example, we have one major proposal by Dow Canada in Fort Saskatchewan to build the world's first net-zero petrochemical facility. They will consume their own hydrogen and bring in other hydrogen to offset natural gas use.

The second part is very important. That hydrogen production and utilization is covered by the IRA.

**Mr. Kyle Seeback:** Is it covered by what Canada has released so far?

**Mr. Bob Masterson:** Again, in Canada there are opportunities to apply for certain incentives. You may or may not get those, and again, you cannot build them into your business case.

**Mr. Kyle Seeback:** But you get that in the United States—

**Mr. Bob Masterson:** You will under the IRA. They're very transparent.

**Mr. Kyle Seeback:** That's under the IRA: Okay.

Next is...?

**Mr. Bob Masterson:** Second, you would have carbon capture, utilization and storage. If you go back, the U.S. had the 45Q tax credit. Canada proposed an ITC, an investment tax credit, for carbon capture. Our estimate was that the 45Q was about twice as robust as the Canadian proposal. Under the IRA, that's at least double. Our analysis says it's now four times better than what Canada's proposing. We have members who will tell you that when they've been in to see Finance Canada on opening up their books, on a project-to-project comparison basis, it's actually eight times better in the U.S.

Again, here's the most important thing: Under the IRA and the 45Q, it's just in the tax code. If you want to do it, the tax incentive is available. What's proposed in Canada is that you would have to get permission from the environment minister and the resource minister to obtain a tax credit, so—

**Mr. Kyle Seeback:** You might be on the naughty list and then not get it.

**Mr. Bob Masterson:** You might be on the naughty list and not get it. What are the criteria? That's the second one.

Electrification is another example that's covered in the IRA. There's a lot of information about electrification. There are many opportunities in our sector. You could be looking at small nuclear reactors. You could be looking at solar installations or battery storage. We have battery storage proposals in Canada. We have solar proposals in our sector. Those are all covered under the IRA and are, again, all very transparent.

I could go on further, but I think you get the point. The main message here is that we do have opportunities to seek support to help accelerate decarbonization of our sector, but when it comes to the federal level, it's all behind a black box. There's no transparency. That's okay, but you just have to recognize that if you're looking to investors, they can't build it into a business case. As soon as something says "ministerial decision", the value of that is zero until you get it. That's the challenge.

• (1135)

**Mr. Kyle Seeback:** In the United States, before the IRA and now with the IRA, you can say that these things are available in the tax code. An investor can factor that into the decision on where they're going to invest. In Canada you apply for this, and you may or may not get it, etc. It's a government program, government-run, and a bureaucratic decision, so you don't know if you're going to get it or not get it.

Is that an accurate summary?

**Mr. Bob Masterson:** I would say that's very accurate.

**Mr. Kyle Seeback:** You mentioned the accelerated capital cost allowance, or CCA, in the United States. I think it's a fantastic tool if you want to innovate. You were saying that it's sunset in Canada in 2023. The government will say, "Yes, but we'll renew it."

Can you explain how accelerated capital cost allowance that's short term but has opportunities for renewal affects a business case?

**Mr. Bob Masterson:** I talked about two of the projects that are coming into commercial production in 2023 in our sector. Those started construction in 2014 and 2015. If you're going to build a \$5-billion, \$7-billion or \$10-billion chemistry facility, that's a five- to seven-year activity. That's why we asked, and it was present in the fall economic statement of 2018, that accelerated capital cost allowance be included, and it was. However, it begins to transition out in 2023.

We've heard from Finance that they didn't see industry really respond, but we did have this thing called COVID, and nobody invested at all. Now, if you look at these dozen to 15 projects in our sector that are being proposed today, you're at a disadvantage. If those were in the U.S., you'd have the accelerated capital cost allowance for the whole five to seven years to build that. In Canada, even if you start putting shovels in the ground and buying material today, it will start to deteriorate in 2023. You don't get the full advantage of it.

We would say that given the COVID interruption, we think it was a great idea and it should be revisited and extended for another capital cycle of 10 years, especially because it's already available in the U.S.

**Mr. Kyle Seeback:** How quickly should the government be responding? They released a fall economic statement with a couple of goodies, but they said we should just wait, because the budget's coming. That won't be until March or April. The IRA was August 16. We're going to wait eight months for the full thing. Is that a big disadvantage to industry? Will industry start making decisions within that eight-month period?



**Mr. Bob Masterson:** No, I don't think so. I do think people will be re-evaluating, again from a due diligence perspective. If you were proposing to build a \$5-billion plant in Canada prior to the IRA, your shareholders and your board will be demanding that you have another look at that and convince them that it's still the right decision.

I think that re-evaluation is going on, but I think it's urgent in the short term—like, by budget next year—to know Canada's response to the IRA.

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

We go now to Mr. Virani for six minutes. Go ahead, please.

**Mr. Arif Virani (Parkdale—High Park, Lib.):** Thank you very much.

I'm going to start by thanking all the witnesses for their testimony.

I'm going to start with Ms. Vera-Perez.

You mentioned some of the important investments that were included in the most recent FES, the fall economic statement. You talked about the clean-tech investment tax credit and the 40% tax credit for hydrogen technology. I'd like you to expand a little bit upon the testimony you provided, but also in the context of the most recent visit by German Chancellor Olaf Scholz here.

Given the security needs of Germany and other allies, you're aware that we struck a deal for about \$2.6 billion to provide hydrogen-based energy to the Germans. Can you comment on that deal and the potential for other deals like it, with respect to these tax credits going forward?

**Ms. Ivette Vera-Perez:** Thank you very much. It's a pleasure to meet you. I live in your riding.

First you asked about expanding on the news from the fall economic statement. The news is in general good. It's a good first step, but that's what it is—a first step.

Right now lots of the conversations and what we want to focus on during the consultations involve getting a fully functional ITC, investment tax credit, but also let's understand what the ITC entails. I'm getting lots of questions about what is eligible and when it is eligible. For example, would a project that started 12 months ago be eligible? We don't want to penalize the early movers, so hopefully the answer is yes.

There are other questions that I am asked by the members. For example, what is the timeline to review? When will the ITC be re-funded? If it's, say, at the end of the tax year, and then six months for review, that means 18 months. Eighteen months is a very long time for an SME.

Then where do the other products fit in? How can companies be bridged if they find themselves waiting for 18 months? What is included? What is a capital cost? In an electrolytic project is it, for example, just the electrolyzer, or is it everything else that is part of the project?

There are many questions. Some members have asked—and this is something the IRA has done really well—about whether we can

see some examples. Can we have a very simple table that shows that my project expects to achieve this much in terms of carbon footprint—kilograms of CO2 equivalent per kilogram of hydrogen produced—and therefore I will stand here? With prevailing job conditions, etc., I will stand here, and this is what I can expect. Then you can bring this to investors.

That's a little bit on my opening statement.

On Stephenville, you were asking about the potential for exports. I was in Stephenville that day. There was a lot of excitement and a lot of interest. After I came back home, I started to reflect. I thought, "All right, it's 2025. That's bold. What do we need to do?" Then the engineer in me started thinking in terms of a Gantt chart: What needs to happen today so that we advance as fast as we can? We need to develop the renewable energy side of the projects, the wind side of the projects and the hydrogen side of the projects and we need to break ground, but long before we break ground, we need to get all the regulatory approvals in place.

I'm thinking about what can be done in parallel. How can we accelerate without cutting corners so that we can get to that day when we break ground, and then we can develop our whole project? The idea of exporting hydrogen is a valid one, but it's also the idea of utilizing hydrogen domestically. We have 40% to 45% emissions reduction targets for 2035, and net zero by 2050, so all those—

• (1140)

**Mr. Arif Virani:** Thank you, Ms. Vera-Perez. I'm sorry, but I have limited time.

I'm going to ask one more question to Mr. Eaton from the Smart Prosperity Institute.

Mr. Eaton, you gave us a list of top opportunities, and I noted, unless I got it down incorrectly, that nuclear wasn't one of them. We've heard about nuclear and small modular reactors, particularly with respect to possibilities of getting indigenous communities in the far north off diesel fuel.

Can you comment upon that and the potentials there for transforming Canada's energy industry?

**Mr. Derek Eaton:** Yes, absolutely.

You're correct in noting that I did not mention nuclear or small modular reactors in the list of eight top opportunity areas. That list is based on work we've done, but as I mentioned, there are also some others, including the Climate Institute and RBC.

I would just say that on the role of small modular reactors in the transition pathways, there's not necessarily a large consensus. I think there is clearly evidence that there are particular opportunities for the types of situations that you are mentioning—remote communities and the far north—and there is potentially a competitiveness play. Our list, the list of eight I was enumerating, is really about areas where we can have new economic value-added cluster growth, ideally with some export opportunities.

Yes, there are a lot of people who are very bullish on small modular reactors, but there are a few question marks around, say, the timeline and the scale of that as an industry, if you want to call it that. Maybe it's in the second tier, if you want to call it that.

• (1145)

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

We'll go to Madame Sinclair-Desgagné for six minutes, please.

Welcome to the committee today.

[*Translation*]

**Ms. Nathalie Sinclair-Desgagné (Terrebonne, BQ):** Thank you, Madam Chair.

Good morning, honourable members.

Thank you to the witnesses for their very insightful remarks.

It is clear that globalization as we knew it is no more. Protectionism is, without question, back in style. Sometimes, protectionism takes an irrational form. The U.S. president might wake up on the wrong side of the bed, and it could spark a trade war. Other times, protectionism is more organized, as we've seen with certain investments in specific sectors.

A useful indicator is the percentage of GDP invested in industrial policies. Some countries are already investing in certain key sectors of the economy. In the years ahead, those countries will have the edge.

In this climate, we can respond in one of two basic ways. We can either negotiate amendments to the act to bring Canada into the U.S.'s protectionist fold. We could, for instance, seek to have green products excluded from the act, as was the case with the Build Back Better Act.

The other option, which a number of witnesses have raised, is to not get left behind and introduce policies in Canada and Quebec—as long as Quebec is still part of Canada—that will help key sectors of the economy, critical sectors, stay competitive.

Ms. Dufour, in the U.S., in China and, to a lesser but still considerable extent, in a number of European countries, billions of dollars are being injected into the economy.

How can Canada stay competitive in that context?

**Ms. Geneviève Dufour:** Thank you for your question.

I think many solutions exist, and the other witnesses talked about some. Canada needs to make smart strategic investments. As a lawyer, I think some of our normative frameworks need reworking. Canada is a laggard on the due diligence front.

Do we want our businesses to be competitive in international markets? Do we want them to be able to export products to Europe, Japan, North America and anywhere else in the world where countries have brought in, or are bringing in, extremely restrictive legislation, countries like Mexico?

Sometimes only applicable to multinationals or companies with very high revenues, these laws force companies to pay careful attention to every step of their production lines as well as various oth-

er considerations, including environmental standards and human rights. This pushes companies to modernize operations and become much more competitive, using methods that are greener, more sustainable and more responsible. They can then export their products to countries with highly restrictive laws.

I would say that Canada is behind because, generally speaking, we don't have any due diligence laws. Yes, we are thinking about passing a law to prohibit imported products created under conditions of forced labour and modern-day slavery, but we are already way behind the pack. As a result, we need to modernize our legal frameworks to impose due diligence requirements on our companies at every stage of production.

That must, however, go hand in hand with a modernized procurement framework, one that forces our public institutions to purchase products and services, and to conduct procurement processes for major infrastructure projects, in a more sustainable and responsible way.

If we change both of those normative frameworks, we can restructure our market, help our companies compete much more effectively and give them the ability to bid on foreign procurement projects. That would, by extension, drive their growth.

• (1150)

**Ms. Nathalie Sinclair-Desgagné:** Excellent.

From a carrot and stick standpoint, the examples you gave were more on the stick side, in other words, restrictive measures. Can you give us examples of carrot-type measures, for instance, targeted subsidies or measures that could help certain sectors flourish?

**Ms. Geneviève Dufour:** Yes, of course. It's what the other witnesses talked about. Having a clearly laid out plan for strategic investment is paramount. It is possible to provide subsidies. The rules of international trade don't prohibit that as long as we follow some basic rules. This is something we absolutely need to do.

**Ms. Nathalie Sinclair-Desgagné:** Thank you very much.

In the current version of the Inflation Reduction Act of 2022, what should be amended? What should we be focusing our efforts on? What should the Canadian government's position be?

The question is for all the witnesses, but you can go first, Ms. Dufour.

[*English*]

**The Chair:** Whoever would like to answer that briefly has 17 seconds remaining.

[Translation]

**Ms. Geneviève Dufour:** As things stand, amending the act would be pretty difficult given the recent changes to the political landscape in the U.S. It's worth mentioning, however, that the act reserves quite favourable treatment for Canada at this time.

I'm actually concerned that other countries will turn to the WTO to challenge the legality of the act, and that would greatly undermine our position.

[English]

**The Chair:** Thank you.

Mr. Cannings, you have six minutes.

**Mr. Richard Cannings (South Okanagan—West Kootenay, NDP):** Thank you.

I'll follow up on that line of questioning.

Ms. Dufour brought up the statement that the IRA is illegal. I assume it wouldn't be in Canada's best interest to travel down that road and fight it. In my riding, we've been fighting the softwood lumber battles for 30 years now, and the Americans are taking us to tribunals and to court over those issues. We win every time, but it's still very devastating to our forest industry. I'm assuming it wouldn't be the best tactic for Canada to fight this through CUSMA or something like that, but you mentioned the WTO.

Briefly, what are any avenues for action by Canada? Would they be helpful, considering that the IRA favours Canada over other countries?

[Translation]

**Ms. Geneviève Dufour:** Thank you for your question, Mr. Cannings.

I don't think Canada needs to turn to a dispute settlement body, either through CUSMA or the WTO. Canada really came out ahead following the negotiations that led to the most recent version of the act. For the time being, we are receiving preferential treatment, as compared with other countries.

As I said earlier, my concern is that other countries will turn to the WTO's dispute settlement body to challenge the act. The outcome of any such process would probably be highly uncertain, given that the U.S.'s refusal to appoint new judges has stalled the body. Similarly, I don't see how Canada would benefit from filing a challenge of the act and requesting a panel under CUSMA. That means the Europeans or the Chinese would likely be the ones to file a complaint with the WTO's dispute settlement body, although the impact would be rather limited since it is possible that the decision might never be implemented.

The fact remains that the people in the U.S. who worked on this act are very competent people, and they know full well that the act violates international trade rules. For decades, under our multilateral trading system, a country could choose to flout the law and simply accept the consequences, for instance, paying a tax or duty. In fact, we could do that if the Americans were acting in good faith, but I don't mean to imply that they aren't. That said, we could go down that road within the framework of multilateral trade negotiations, if the Americans were to say that their priority was to main-

tain the act even if it was illegal and that they would pay countervailing duties.

• (1155)

[English]

**Mr. Richard Cannings:** Thank you.

I'd like to turn to Mr. Eaton.

You mentioned, Mr. Eaton, towards the end of your presentation, the need for inclusive partnerships. You said that we have to act quickly and act collaboratively, and that we have to have working groups.

I've heard in other committees about the importance of data and IP issues around acting quickly. I've heard in other committees about the need for Crown corporations to bring groups together to do this. Do you have any quick comments on what the structure of those collaborative partnerships might look like and what we need to do?

**Mr. Derek Eaton:** What might those partnerships look like? I think there are some lessons to be taken from our recent history with the industry strategy council and the economic strategy tables. They were a very good start, but they don't get to the next level down of getting more granular, getting more specific and developing plans and road maps.

We've sketched out at Smart Prosperity, together with our collaborators and transition accelerator, a proposal for building these collaborative partnerships with leadership from the federal government. We would say that one way to do this is to have a lead department tasked with delivering on a clean competitiveness goal—one of the areas I was mentioning—and tasked with creating a sector strategy and road map, but these are then set up as, effectively, partnerships involving business, stakeholders, finance and first nations to develop a strategy that leads to the identification of priority projects and priority policy supports.

These sorts of tables, if you want to call them that, could be a competitiveness table for hydrogen or a competitiveness table for the electric vehicle and battery supply chain, and they would be asked to make periodic recommendations on three things: evaluating the effectiveness of current goals and strategies, identifying the mix of policies needed to achieve these goals and identifying priority investments and projects for the sector.

Ideally you would have some form of working group to oversee the work of these various tables. That could be perhaps under the leadership of PMO or PCO, because it's important to find and identify the interdependencies, the connections, across these areas, and they—

**The Chair:** Thank you very much, Mr. Eaton. I'm sorry to cut you off.

We'll go to Mr. Martel for five minutes.

[Translation]

**Mr. Richard Martel (Chicoutimi—Le Fjord, CPC):** Thank you, Madam Chair.

Thank you to the witnesses for being here.

Ms. Vera-Perez, the Inflation Reduction Act of 2022 was signed into law on August 16. Is it acceptable for the Government of Canada to wait until the March or April 2023 budget to respond to the U.S. measures?

[English]

**Ms. Ivette Vera-Perez:** Yes, August 16 was a very busy day for us in the sector. Right away we started reaching out to government, to Natural Resources Canada and to different departments, and we filed a pre-budget feedback letter.

I wish the reaction had been quicker, but let's hope that this is because we were putting a lot of thought into how to react to the IRA. Since August 16, I have been in multiple meetings, part of them educating and discussing the implications for the sector as a whole and the short-term implications for Canada.

Here we are today. My focus would be to say that the fall economic statement has provided some good news—I believe there's still a lot of work to be done—in the form of the ITC for clean technologies that can be partnered with hydrogen. For hydrogen specifically, let's work to make that functional and clear and provide examples to investors so that they don't continue to look south. Let's do more. We haven't talked about the production side of things. That would be my approach. Here we are today. Let's get this going.

• (1200)

[Translation]

**Mr. Richard Martel:** Given what your association has for years been calling for, how do you explain the fact that Canada is once again trailing behind? Canada is in that boat on a number of fronts. Why isn't Canada farther along?

[English]

**Ms. Ivette Vera-Perez:** That's a very good question. My position is always that we're here to help. We're here to provide the knowledge and wisdom from the members and the tools that the members bring to the table. Hydrogen is a tremendous opportunity for Canada in decarbonizing the economy. Let's get this going. The issue we have is one of scale. We need to scale up. The technology is ready. We don't need to talk about something that may be happening in 10 years; we have solutions for tomorrow morning. We just need to get going.

[Translation]

**Mr. Richard Martel:** You recently authored an article in the Hill Times. In it, you suggest that Canada will stop being a global hydrogen leader if it does not respond swiftly to the U.S.'s Inflation Reduction Act of 2022.

You say that, to make sure we don't lose investment and potential to the U.S., the Canadian government must develop a supportive ecosystem to encourage hydrogen production and demand.

Can you provide more details on the things you warn about in the article?

[English]

**Ms. Ivette Vera-Perez:** That was part of my reflection after Stephenville. Canada has a tremendous tradition on the electrolyzer manufacturing front and on the fuel cell front. This is where the electrolyzer was developed: It was in Canada. A lot of the cluster companies in the British Columbia area come from one initial company, Ballard, which is still around today and quite successful. We have all of that knowledge. We have that IP. We have the talent, the highly qualified individuals. This is what we need to capitalize on.

I have here the 1987 Canadian hydrogen strategy. This was my summer reading. We've been going at this for a long time. We were leaders when the world wasn't looking. Now everybody has jumped onto the bandwagon, and we really need to reclaim the leadership spot. It's almost an emotional topic for us in this sector, for me in particular. This is what I meant when I said we're lagging behind in terms of the leadership that we have always held, but we still have that IP and we still have that knowledge. We still have years of tradition and knowledge in Canada.

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

Go ahead, Ms. Dhillon, for five minutes, please.

**Ms. Anju Dhillon (Dorval—Lachine—LaSalle, Lib.):** Thank you, Madam Chair, and thank you to our witnesses for being here today.

I will start with Mr. Eaton.

In March the Smart Prosperity Institute published a document entitled "Canada's Future in a Net-Zero World", which identified aluminum as a top priority for Canada in a net-zero world.

Can you please identify any specific industries that represent potential growth for the Canadian aluminum industry? Since this report was published, have you identified any new or strengthened market opportunities for Canadian aluminum producers?

• (1205)

**Mr. Derek Eaton:** Yes, we did identify producing green aluminum as an opportunity for transitioning Canada's aluminum industry and potentially having continued or new opportunities for export to aluminum-demanding sectors among our major trading partners. We have not done follow-up work on those market opportunities, to be clear. I did not mention green aluminum in the list of eight top opportunity areas that I went through in my opening remarks. That is because we seem to be the only group that has identified that opportunity, and I was trying to offer a list of opportunities for which there was a consensus of opinion.

I don't think there's any lack of consensus among those of us who look in these areas that Canada needs to decarbonize major heavily emitting industries, of which aluminum is one. Cement and concrete is another, and steel is yet another. Aluminum is one that provides more export opportunities than those other two areas do, but they're also important in terms of maintaining domestic market share.

**Ms. Anju Dhillon:** Thank you for that.

Would you be able to elaborate a bit more on green aluminum? You said you were one of the only groups to identify it. Could you talk to us a bit more about the benefits of green aluminum?

**Mr. Derek Eaton:** Green aluminum is going to appear as the world transitions to net zero. Canada has an advantage with its industries at the moment in terms of one of the processing stages. I'm not able to specify that for you right now. I could certainly follow up and provide you with further information.

There is perhaps a narrow window of opportunity. That is what we heard in talking to a number of people and experts in the industry. If Canada wants to seize some market share, particularly in Europe, then we would need to find ways for the industry to move faster.

Of course, this is related to some of the other discussions we're having around hydrogen and carbon capture and utilization, as these are critical components for decarbonizing heavy industry.

**Ms. Anju Dhillon:** You spoke a bit about having more export opportunities and about decarbonization. Can you please tell us how decarbonization could be accelerated or how you would envision that happening? How would it affect exports as well?

**Mr. Derek Eaton:** The decarbonization of major industries such as aluminum, in our view, requires a strategic approach in which some form of a collaborative strategic partnership is established, involving a range of stakeholders—the industries, the relevant provincial governments, finance and researchers—to develop a road map effectively for how this should take place. We stress that the government needs to be at the table. However, as we've seen with the cement road map initiative that was initiated, these types of partnerships ideally develop a strategy for decarbonizing that particular industry in a way that is not completely run by government, but in which government is clearly present.

These export opportunities would also be part of that scoping and road-mapping process. There would be the potential for relevant stakeholders, whether they're researchers or those in the finance sector, as well as industry, to examine where those potential new markets will be strongest, particularly for, say, green-certified decarbonized aluminum.

• (1210)

**The Chair:** Thank you very very much, Mr. Eaton.

We'll go on to Madam Sinclair-Desgagné for two and a half minutes, please.

[*Translation*]

**Ms. Nathalie Sinclair-Desgagné:** Thank you, Madam Chair.

I'd like to follow up on my earlier line of questioning.

Mr. Masterson, what you were saying was quite interesting. You mentioned the assistance that provinces such as Quebec and Alberta provide to attract foreign companies and create a more competitive landscape.

Given the current iteration of the U.S.'s Inflation Reduction Act of 2022, what could the Government of Canada do to improve the situation? What approach could the government take to improve—or at least try to improve—the legislation for Canadian companies?

[*English*]

**Mr. Bob Masterson:** Very good. Thank you for the question.

Let's first identify why we are here today. The IRA is the most audacious public policy instrument ever introduced to decarbonize a major economy in the world. We're here talking about it because we all know it's going to work.

What have they done? They have unleashed the power of private capital to attain a public good, which is decarbonization. We're busy—I apologize to my colleague—talking about strategies, plans and tables. Strategies, plans and tables don't decarbonize anything. Investment decarbonizes. We have to come back to that.

I think we have to stop with the self-inflicted wounds. We have all these debates. Is it blue hydrogen? Is it green hydrogen? Guess what—in the IRA, they both count. It's a different level of incentive, but there's one for green, and it's really high, and there's another one for blue, and it still makes it cost-competitive.

We're debating in Canada. Why haven't we seen the investment tax credit for carbon capture and storage? It's because there are many critics who don't think it's a good idea, yet we are one of the world's top 10 chemical producers. It is one of our easiest solutions to obtain decarbonization in our sector.

We have to move on these things. The time for study and tables and plans and frameworks, as we heard from Egypt over the past two weeks, is gone. It's the time to invest and invest quickly, and that's what Canada has to do. We're talking about it because the Americans are doing it incredibly quickly.

[*Translation*]

**Ms. Nathalie Sinclair-Desgagné:** Thank you.

[*English*]

**The Chair:** Thirty seconds remain.

[*Translation*]

**Ms. Nathalie Sinclair-Desgagné:** The way the U.S.'s Inflation Reduction Act of 2022 is currently worded, are there any changes that could be made to improve the situation for Canadian businesses or shield them from the impact of the measures?

[English]

**Mr. Bob Masterson:** I'm sorry, but I'm not hearing the translation.

**The Chair:** We have to suspend for a minute here. We have a problem with our translation.

The clerk may have to raise the volume on it.

I'm turning the floor back over to you for that question.

[Translation]

**Ms. Nathalie Sinclair-Desgagné:** Thank you for indulging me, Madam Chair.

I'll repeat the question. The way the U.S.'s Inflation Reduction Act of 2022 is currently worded, are there any changes that could be made to make things better for Canadian businesses or minimize the act's impact on them?

[English]

**Mr. Bob Masterson:** From the chemistry sector, I haven't seen anything that disadvantages us.

Again, I would say that the challenges we face are largely self-inflicted. I do worry when we look at some of the other sectors, such as critical minerals, and when we look at the supply chain, but again, as Madame Dufour said, there's a nod to CUSMA that perhaps we're covered, so I wouldn't be an expert there. There's nothing that stands out from a chemistry perspective.

**The Chair:** Thank you.

Mr. Cannings, go ahead, please, for two and a half minutes.

**Mr. Richard Cannings:** I'd just like to ask a quick question to both Ms. Dufour and Mr. Masterson.

Mr. Masterson brought up the concern—I don't know if this is one of your self-inflicted wounds—of the carbon pricing, which causes some issues. I've heard about it a lot in terms of exports from Canada. I just want to know from Ms. Dufour what the prospects are for getting border adjustments in place to level that playing field.

If there's time, perhaps Mr. Masterson can comment as well.

[Translation]

**Ms. Geneviève Dufour:** Thank you for your question.

The issue of carbon border adjustments is especially timely when you consider decarbonization in the context of international trade. We know that the European Union will be bringing in adjustments in the next few months, although they could be delayed. That means Canadian companies exporting aluminum, steel, fertilizer, cement and other such products to Europe will have to start paying a surtax when those products enter European territory.

We have to think carefully about our carbon pricing. We are caught between Europe, which has put a very high price on carbon, and our other big trading partner, the U.S., which hasn't really put a federal price on carbon and isn't considering a carbon border adjustment mechanism.

Canada will have to consider all of those things carefully. Consultations on the issue were conducted about a year ago. We also need to keep a very close eye on what happens at the WTO. The next trade war will probably focus on carbon border adjustments.

• (1215)

[English]

**Mr. Richard Cannings:** Mr. Masterson, do you have any comments about carbon border adjustments to level that playing field?

**Mr. Bob Masterson:** I think they'll be incredibly complex, and by the time we figure them out, it will be too damaging.

Just to be clear, our sector is not against carbon pricing. The proposals I talked about have all been introduced despite the Canadian carbon pricing going to \$170 per tonne within the next decade.

It can be a major incentive, but we have to ask what we are doing with the revenues. If those are simply moved out of the productive sectors and set aside for other reasons and we're not putting things back in the way the American IRA does, then we have a significant problem.

Yes, it can spur on the type of activity we want, but we still have to think about what the cost of capital is at the end of the day, and whether Canada is maintaining a competitive landscape to attract these investments.

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

We will go to Ms. Lewis. Welcome to the committee today. It's nice to have you here.

**Ms. Leslyn Lewis (Haldimand—Norfolk, CPC):** Thank you, Madam Chair.

I thank the witnesses for their testimony today.

My first question is for Dr. Dufour, through the chair.

Thank you, Dr. Dufour, for your explanation of the illegality of the IRA.

You highlighted three points that I find very interesting. They are the violation of the national treatment principle, the violation of the most favoured nation status under the GATT and the violation of the Subsidies and Countervailing Measures Agreement.

I'm sure that you're familiar with the Canada feed-in tariff case that was before the dispute settlement body. They actually invoked an exception under, I believe, section 8 for the Subsidies and Countervailing Measures Agreement. The exception was that if there's a new industry, that would not be deemed to be a violation of the most favoured nation status under the GATT.

Do you believe that the U.S. would invoke this exception and perhaps even have climate change viewed as a global public good? Because these industries will be new industries, do you think that this would be a viable exception?

[*Translation*]

**Ms. Geneviève Dufour:** Thank you for that very technical question. I'm not sure I've considered all the factors you mentioned.

That said, I've read much of what experts have been saying since August, and I haven't come across anyone who has raised that. It's a tough question to answer, but, on the surface, I don't think that exception could be invoked.

Frankly speaking, it would be pretty hard for the Americans to justify their legislation. I didn't provide a proper legal opinion earlier. I kept my comments more general. The U.S.'s Inflation Reduction Act of 2022 contains a lot of measures, but that doesn't mean that each of those measures amounts to one of the violations I mentioned. Everything really has to be dissected.

All of the experts whose comments I have read or with whom I have spoken have been pretty unequivocal about the act: it really violates the basic tenets of international trade and very few exceptions could be invoked to warrant its implementation. Certainly, the U.S. could cite national security in relation to the countries of concern, but it probably couldn't invoke national security as grounds for all the measures in the act.

• (1220)

[*English*]

**Ms. Leslyn Lewis:** Thank you so much, Dr. Dufour.

My next question is for Mr. Masterson.

You highlighted that the criteria to get on the “good” list aren't transparent. That's highly problematic, because if we're very serious about protecting the environment, we want transparency. Even though the IRA framework is not the perfect framework, at least there is a framework.

Do you believe that Canada needs a similar framework? Without it there's a lack of transparency, and I'm assuming that would present some barrier to economic development.

**Mr. Bob Masterson:** Absolutely. Let me share with you an example.

Alberta has a major chemical-producing sector that had no new investments for more than two decades. The NDP government introduced 500 million dollars' worth of tax credits. It was a competitive process. They selected two, with over seven million dollars' worth of proposed investments, but here's the thing: They had 26 applicants and they had to turn away more than \$40 billion in investment because they had to pick winners and losers.

In Alberta, the government eventually moved to the U.S. state-style approach, which is, “Here are the criteria, and if you meet these criteria, you qualify for these incentives.”

In Alberta, our sector now qualifies, if you have the right investment, for 12% to 15% of the capital cost of the project. Suddenly,

now I'm here before you telling you that we have 15 projects worth \$30 billion to \$40 billion of proposed activity.

That's the illustration of the difference between saying, “We have some money, so make an application. It depends on the government of the day and it depends on whether you're on the naughty list. We don't know the criteria, so you might win or you might lose” and saying, as the U.S. does, “It's available to everybody; bring your capital. We want your capital”.

It's pretty clear.

**Ms. Leslyn Lewis:** Do you know how to get on the naughty list?

**Mr. Bob Masterson:** No. I'm just trying to use something different than the carrot and the stick. You've heard about carrots and sticks a lot. I thought I'd try to spice it up for you.

**The Chair:** It's much spicier. It's much more interesting. Thank you.

We have Mr. Miao for five minutes, please.

**Mr. Wilson Miao (Richmond Centre, Lib.):** Thank you, Madam Chair. Thank you to all the witnesses for their testimony to the standing committee.

First I would like to ask Mr. Eaton a question through the chair.

Your website makes mention of how clean innovation and growth is essential to the Canadian economy across all industries. Which sectors have the greatest opportunity to implement clean innovation? How can Canadian companies use programs such as the Canada growth fund to accelerate clean innovation?

**Mr. Derek Eaton:** Thank you.

I think the sectors that we've identified as offering the greatest opportunities for clean growth in a net-zero transition are the ones that I mentioned at the beginning: electric vehicles and the battery supply chain; carbon capture utilization and storage as a sector or a technology; biofuels, especially sustainable aviation fuels; hydrogen; alternative and plant-based proteins; mass timber and related forest wood products; critical minerals, again related to the battery supply chain; and ag tech.

These are areas where decarbonization involves a tremendous amount of innovation. In some cases it's much more advanced, as we know, as in the case of hydrogen, as we've heard today. In some of these other areas, a much longer research or innovation pathway is required.

I do agree with what is being said by some of my fellow witnesses: We do need investments. We see that the Inflation Reduction Act makes clearer incentives than we have in Canada. Some of these sectors, for the investments especially to pursue these innovation pathways, require a certain amount of coordination.

We can think about the overall investment envelope that we're talking about. The figure that was mentioned earlier in this session, for example, that was estimated by RBC, was \$2 trillion in total, or \$80 billion per year. Actually, the capital is scarce. We need to take a strategic approach to ensure that particularly for these growth opportunities.... The reason we're worried about the growth opportunities is that at the moment, 20% of our exports of goods and services come from the oil and gas sector. Over the next 20 to 30 years, we can likely expect the value of those exports to decrease. Where is the value going to increase across our other sectors?

That's why we look at these emerging innovative green or clean competitiveness opportunities.

• (1225)

**Mr. Wilson Miao:** Thank you.

You also co-authored an article in the National Observer on how the Inflation Reduction Act “paves a path for Canadian action on clean growth”.

What aspect of the recent fall economic statement positioned Canada to realize the potential for clean growth? What steps do you think the government should take to further its action on it?

**Mr. Derek Eaton:** The fall economic statement advances a little more clarity on a couple of points, in particular the Canada growth fund, which is a key instrument of our net-zero industrial policy, although there are still question marks there. That's perhaps the brightest light within the fall economic statement.

I would say that some of the announcements around our tax credits are perhaps encouraging, but we're failing to provide the certain-

ty in terms of the actual specifics of those instruments as well as the certainty in terms of the actual mechanics. An example is hydrogen. Are we providing tax credits based on an overall investment, or are we providing, as in the U.S., tax credits based on a kilogram of hydrogen produced?

There are some encouraging signs, but I think what I would like to emphasize is that even with the Canada growth fund, we are concerned that we're creating an array of funding instruments from the strategic innovation fund to the net zero accelerator initiative to the Canada growth fund, and each of these is being set up effectively in isolation from the others. There are certain barriers to pursuing particularly these medium-term investment pathways that are not going to be overcome. It's going to be too difficult for the market participants to work out where those pathways are and to access and combine these various financing mechanisms. Although in general they are well conceived, it's the strategic aspect of them that's important—identifying where the strategic opportunities are and ensuring that those funds are aligned with strategic opportunities. That means taking more than a passive approach and just accepting applications.

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

Thank you to all of our witnesses. We do not have sufficient time to start another round, so I want to thank you all for very valuable information and for sharing your time with us today.

I will suspend for two minutes, and then we have to go into committee business following the suspension.

*[Proceedings continue in camera]*









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