HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

44th PARLIAMENT, 1st SESSION

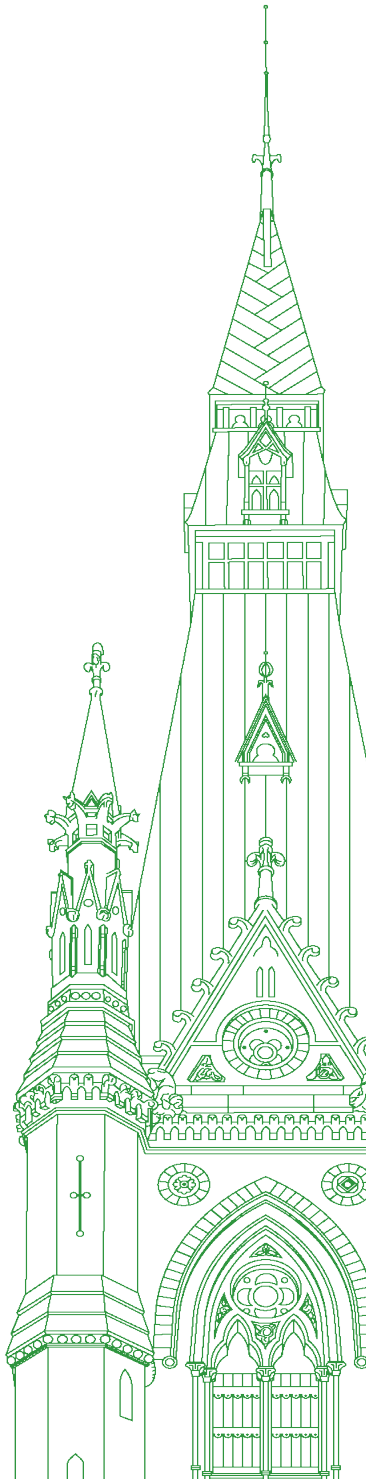
Standing Committee on International Trade

EVIDENCE

NUMBER 040

PUBLIC PART ONLY - PARTIE PUBLIQUE SEULEMENT

Tuesday, November 29, 2022



Chair: The Honourable Judy A. Sgro

Standing Committee on International Trade

Tuesday, November 29, 2022

● (1100)

[*English*]

The Chair (Hon. Judy A. Sgro (Humber River—Black Creek, Lib.)): I'm calling to order meeting number 40 of the Standing Committee on International Trade. 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 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 the floor, English or French. For those in the room, you can use the earpiece and select the desired channel.

I remind you 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 best we can. Please note that during the meeting, it is not permitted to take pictures in the room or screen shots on Zoom.

In accordance with the committee's routine motion concerning connection tests for witnesses appearing by video conference, I'm informing the committee that all witnesses have completed the required connection test in advance of the meeting and our translators are connected and looking forward to helping us through our meeting. Should any technical challenges arise, please advise me and we will suspend in order to ensure that all members have access to translation.

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 potential trade impacts of the United States Inflation Reduction Act of 2022 on certain firms and workers in Canada.

Today as witnesses we have with us from the Canadian Agri-Food Trade Alliance, Claire Citeau, the executive director.

Welcome back again.

From the Canadian Association of Energy Contractors, we have Mark Scholz, president and chief executive officer, by video conference. From the Canadian Renewable Energy Association, we have Evan Wilson, senior director of policy, regulatory and government affairs, by video conference. From Electricity Canada, we have Francis Bradley, president and chief executive officer. From Renewable Industries Canada, we have Don O'Connor, an adviser, by video conference.

Thank you to all our witnesses for making the time to participate today.

Ms. Citeau, I invite you to make an opening statement of up to five minutes, please.

[*Translation*]

Ms. Claire Citeau (Executive Director, Canadian Agri-Food Trade Alliance): Thank you, Madam Chair.

Good morning.

[*English*]

I'm pleased to be here to share preliminary views on behalf of Canada's agri-food exporters on how the American Inflation Reduction Act—or IRA—may impact our sector and what we believe Canada's response should be.

As you know, the IRA offers major tax and funding incentives to build out the clean energy sector in the U.S. As a result, Canada is responding with its own set of incentives, many of which were recently announced in the fall economic statement.

Given that our mandate focuses solely on trade liberalization, I'm going to focus my remarks on one main trade policy theme, which is the need for Canada to remain globally competitive in the agri-food sector by increasing its investments in manufacturing and ensuring parity in investment manufacturing with our global competitors.

Within the IRA, $40 billion is being earmarked for agriculture, forestry and rural economic development, with nearly half of that for conservation programs. The act is also providing over $3 billion in loans to farmers, ranchers and foresters in underserved areas. To be clear, CAFTA members are not looking for loans or direct payments such as those found in the IRA.

Canada is the fifth largest global agri-food exporter, so countries around the world depend it for their food security. To do so, exporters must have competitive access to world markets guided by the principles of rules-based trade. We also need to ensure that Canada remains a competitive jurisdiction. For agriculture and food, investment in food machinery and equipment in particular has been on a steady long-term decline in Canada.

A recent report by the C.D. Howe Institute titled “Weak Business Investment Threatens Canadian Prosperity” reveals that manufacturing and equipment investment in Canada has been flat since 2009. The report explains that much lower investment per worker in Canada than abroad tells us that businesses see less opportunity in Canada.

Canada lags behind the United States and other OECD countries regarding investment. Between 2015 and 2019, manufacturing investment across 31 OECD countries averaged a total of $1.77 trillion per year. Canada attracted less than $22 billion annually, accounting for only 1.2% of the OECD total, which is the lowest proportion among our G7 counterparts and Mexico. By comparison, the U.S. received 23 times this amount, while Mexico received 10 times our amount.

Similarly, in the crop sector, investment parity with the U.S. is key to unlocking Canada’s full potential as a biofuels producer. Today, biofuels are the only viable, low-carbon energy alternative for powering vehicles such as tractors, heavy-duty and transport trucks, buses, locomotives, and mining and forestry equipment. The fuel market is integrated across North America and Canada competes with the U.S. for investment. The U.S. has several well-established programs that have created a robust biofuels production industry. The IRA introduced a suite of new tax credits that will apply to fuel produced at a qualified facility in the U.S.

The IRA, as such, incentivized production in the U.S., which will ultimately influence the investment climate in the renewable fuel production space in Canada. Investments are necessary to help enable biofuel production in Canada and help support a domestic market for agriculture feedstocks grown in Canada.

To summarize, the IRA poses a challenge to Canada's ability to attract and retain investment, and by extension, to Canada’s global competitiveness.

As I conclude, I’ll reiterate one of CAFTA’s core beliefs and its primary raison d’être by saying that as a trading and export-dependent nation, we know what our recipe for success looks like when it comes to agri-food exports. We must remain a forceful global champion for free and rules-based trade and be competitive in global markets.

The IRA has made clear that the U.S. intends to lead in a variety of sectors going forward. This is forcing Canada to respond or risk losing investment, market share and overall speed to market. With the right policy choices at home, we can make this happen. This is also precisely why our members have asked for more industry-government collaboration—to prevent issues from becoming problems.

Thank you.

● (1105)

The Chair: Thank you very much, Ms. Citeau.

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

Mr. Mark A. Scholz (President and Chief Executive Officer, Canadian Association of Energy Contractors): Thank you very much, Madam Chair and members of the committee.

My name is Mark Scholz. I'm the president and CEO of the Canadian Association of Energy Contractors. We represent 97 drilling rig and service rig members on the front lines of energy security and transition that currently operate a fleet of 456 land drilling rigs and 755 service rigs in northeast British Columbia, Alberta, Saskatchewan, Manitoba and offshore Newfoundland.

Our workers and member companies will be in higher demand as development continues to grow for geothermal; helium; carbon capture, utilization and storage; natural gas; in situ hydrogen; lithium extraction from brines; and potash, to name just a few. We are excited to not only move forward with the development of emissions reduction technologies but also set a global standard and road map for developing sustainable resources, building upon our record as the world's premier responsible energy supplier of choice.

While we understand that Canada cannot respond in kind to the Inflation Reduction Act given our market size and structure, our association recommends that Canada work within its own policies to spearhead innovation in energy transition and give us the tools needed to lead decarbonization efforts, thus not only matching U.S. ambitions but also surpassing American climate mandates.

To that end, our association has developed a white paper that recommends that the federal government introduce a refundable tax credit for up to 50% of the capital investments required to accelerate the deployment of carbon-abating technologies in the energy services sector. Our members want to switch from diesel to proven less carbon-intensive technologies. This policy would significantly advance emission reduction in the industry, helping Canada meet its targets under the 2030 emissions reduction plan and outrun the U.S. on decarbonization within our sector.

We have provided a copy of that report to the clerk and the committee. We would urge the committee to consider its recommendations.

Most recently, we were encouraged to see some of our white paper concepts reflected in the federal government's 2022 fall economic statement. The government's continued support for the innovation and workers necessary to grow Canada's economy was indicated in the inclusion of the clean technology investment tax credit and the various labour provisions. Both these pieces are significant to remain competitive in Canada, as losing investments domestically directly affects the projects and sites we work on.

To further our competitive advantage, we recommend that the clean technology ITC be clarified to specifically capture drilling rig and service rig technologies for the 30% refundable tax credit and to provide a partial carve-out for drilling and service rig technologies that would significantly decarbonize projects by 20% to 30%. We want to decarbonize some of the highest-emitting technologies to draw on hydrogen, electricity and other clean energies. In particular, we want to move some of our rig technologies off diesel to lower-emitting natural gas when operating in regions without infrastructural capacity for a full net-zero technology transfer.

Labour was also a notable piece to us in the fall economic statement, as one of the greatest challenges facing our sector is the shortage of skilled personnel. We are glad to see the energy workforce's concerns and the proposed implementation of the sustainable jobs training centre and the sustainable jobs secretariat. Again, we would encourage the inclusion of our sector in this work as we lead the transition to cleaner energy sources.

With drilling activity and job creation finally on the slow rise after a seven-year slump, and knowing that the future of clean energy runs through our workforce, it is vital that we have enough workers to realize our emissions reduction goals. We need to ensure that we are neither losing our people to the other side of the border over better labour advancements nor losing investments and funding for our industry as a whole.

Madam Chair, I would like to thank the committee for this opportunity. I look forward to the questions.

● (1110)

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

Mr. Wilson, you have up to five minutes, please.

Mr. Evan Wilson (Senior Director, Policy, Regulatory and Government Affairs, Canadian Renewable Energy Association): Thank you, Madam Chair, and committee members for the opportunity to provide comment today on the impacts of the Inflation Reduction Act on renewable energy in Canada.

CanREA, or the Canadian Renewable Energy Association, is the national industry association representing wind energy, solar energy and energy storage in Canada. Our members deliver low-cost, reliable and scalable solutions to meet Canada's net-zero commitments.

First, I will give a quick outlook on our sector. Currently, renewables meet about 7% of our electricity demand in Canada, with 15 gigawatts of wind and 4 gigawatts of solar capacity across the country, most of it deployed since 2005. The CER's 2021 energy future report projects that wind and solar capacity in Canada will grow by 83% by 2040 based on current policies, and by 239% in the evolving policies scenario.

Looking ahead at net zero—which is not included in any of these scenarios—we need to figure out ways to accelerate wind, solar and energy storage deployment in order to meet our net-zero goals.

CanREA's 2050 vision provides a three-step process to meet net-zero by 2050. First, is grid decarbonization by 2035. Second, is electrification of nearly all energy needs, powered by an expanded clean grid. The third is the use of green hydrogen to provide energy for hard-to-decarbonize sectors in our economy.

Low-cost solar and wind will be foundational for all three of these steps. They not only provide the lowest-cost electricity, but they are mature technologies. They can provide proven, effective emissions reductions today, without the need to wait for R and D or commercialization.

Our vision concludes that we need to increase wind and solar capacity by over tenfold in the next three decades. We need to attract $8 billion in investment annually in order to power this transition and create 800,000 direct and indirect person-years of employment.

The Inflation Reduction Act makes this more complicated than it was six months ago. It's really been a game-changer for our sector. Canada's response to the IRA will be critical for our ability to meet net zero.

The IRA sets out a framework for investment in grid decarbonization and has created an environment that our members say is like a gravitational pull attracting investments to the U.S. We're now facing a fierce competitive landscape. Absent an effective response, we may delay Canada's net-zero success.

This isn't just about the dollars spent in the IRA. There are also a number of policy issues that are impacted, creating a competitive destination in the U.S. That includes long-term certainty over 10 years. We know what the programs will look like over 10 years.

There is a strategic approach that links renewable generation investments to infrastructure that supports them. Transmission, supply chains and the like are also covered by the IRA.

There's also the well-timed distribution of incentive dollars, which pushes investments over the line rather than coming late in the process.

We really need to think about how we match the strategic ambition of the IRA to ensure that we get investments to support net zero in Canada. If we move rapidly enough on this, there is time to do so.

We want to acknowledge that Canada has shown strong leadership on net-zero emissions via regulations like carbon pricing, a commitment to a net-zero grid by 2035, as well as by investing almost $15 billion annually in net-zero spending.

These are really commendable efforts and we do want to celebrate them. But to succeed, we need to take even further steps to match the IRA. I get a lot of questions about what this looks like. We think that overall the steps that were announced in the fall economic statement are a really positive start to this conversation, both with the acknowledgement of the IRA and the commitment to refundable investment tax credits for wind, solar, energy storage as well as green hydrogen. Efforts that Mr. Scholz talked about regarding employment are also very important. We look forward to working to support all of these efforts.

Other steps that could be taken to match the IRA include stronger regulatory signals that provide long-term certainty with the development of a longer term carbon pricing so we know what carbon pricing will look like—at least in 2040 and in the net-zero era—and a strong and effective clean electricity regulation. As well, financial support for things like transmission and smart grids can help get clean electrons to market. We think federal participation will be crucial to ensure accelerated deployment and affordability across the country. As well, strategic focus on supply chain development will help relieve ongoing pressure and potential backlogs and ensure that they're not compounded by the impacts of the IRA.

● (1115)

We think that these steps will result in emissions reductions now and set Canada on an effective, affordable and achievable path to net zero.

Thank you to members and the chair for the opportunity to present today. I look forward to our conversation.

Thank you.

The Chair: Thank you, Mr. Wilson.

We'll go to Mr. Bradley for up to five minutes, please.

[*Translation*]

Mr. Francis Bradley (President and Chief Executive Officer, Electricity Canada): Thank you, Madam Chair.

I would like to thank the members of the Standing Committee on International Trade for inviting our organization to take part in this important study.

My name is Francis Bradley and I am president and chief executive officer of Electricity Canada.

Electricity Canada is the national forum and voice of the electricity business in Canada. Our members generate, transmit and distribute electrical energy to industrial, commercial, residential and institutional customers across Canada.

[*English*]

We're here today to study the potential trade impacts on Canada of the United States' Inflation Reduction Act. In essence, this is a conversation on how Canada is to remain competitive in the face of massive U.S. federal investments in support of climate priorities and the energy transition.

For the electricity sector, the IRA presents a significant challenge in attracting and retaining clean energy investments in Canada. Our concern is that investors will see the United States as a more appealing jurisdiction to make clean energy investments in. This risks slowing our own progress towards the decarbonization of our grid.

The recent fall economic statement is a good first step in ensuring that we keep pace with the United States and remain competitive in attracting investments. Electricity companies in Canada have been asking the government to accelerate investments and to develop the mechanisms that will enable us to make Canada’s grid green by 2035 and bring the country to net-zero carbon emissions by 2050. The fall economic statement begins that process of acceleration.

In particular, we are pleased to see the launch of the Canada growth fund, which will reduce risk and support investment and deployment in clean technologies like CCUS and hydrogen that will be necessary to build a non-emitting electricity grid.

The $250 million investment in training will help build a labour force that will meet the needs of our net-zero future.

The funding to accelerate approvals for major projects by expanding the capacity of regulatory bodies will be vitally important, given the large infrastructure challenges facing us over the coming years.

The FES includes investment tax credits, or ITCs, for a broad range of electricity technologies like small modular reactors, battery storage and wind, solar and water power. Electricity Canada is pleased to see these incentives.

Canada must keep up the pace. The government must accelerate the realization of a stable and supportive investment climate. The FES begins that process and puts us on the right track, but more is needed. We are hopeful that this trend will continue in budget 2023.

In building on the FES, we look forward to continuing the conversation to maximize these efforts, first by finding ways to support non-tax paying groups like Crown corporations, municipalities, and indigenous groups. Second is expanding supports for large hydro and nuclear projects, which will be a key part of that energy transition. Third is prioritizing technology agnosticism in clean technology supports to allow for all to compete on an even playing field, including emerging technologies.

The government must also remove undue cost, delay and impediment for clean electricity project developments and operation. We recognize that the FES does take a step in that direction by providing additional funding to regulatory bodies. We look forward to seeing how this is implemented and hope to have the opportunity to participate in that process.

Electricity Canada will be submitting a letter to the Department of Finance in the coming weeks on ways to address these. We'd be happy to share these suggestions with the committee once this is finalized.

The Inflation Reduction Act reminds us that we must move faster, not only to remain competitive with the United States but also to meet our own climate objectives. Addressing climate change and building electricity capacity for Canada to achieve net zero is a massive undertaking. We need to take bolder and faster steps if we want to achieve these things by the deadlines the government has set.

The number 4,781 is the number of days left before the end 2035, by which time the government has committed to a net-zero electricity grid. This is not a lot of time. Tomorrow it will be 4,780 days. Ensuring that Canada remains competitive is an important piece of building out a clean, affordable and reliable electricity system for the decades to come.

[*Translation*]

Thank you very much.

● (1120)

[*English*]

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

We'll go on to Mr. O'Connor, please.

Mr. Don O'Connor (Advisor, Renewable Industries Canada): Thank you to the chair, vice-chairs and committee members for having us here today to speak on behalf of Renewable Industries Canada, the national representative of Canada's first and foremost renewable fuel producers.

My name is Don O'Connor. I'm a long-time technical adviser to Renewable Industries Canada on carbon policy. As well, I'm the president of S&T^2 Consultants, a firm specializing in understanding energy and environmental issues worldwide, including life-cycle assessment, which is a significant and monetized mechanism in the new federal clean fuel regulations, as well as programs such as the low-carbon fuel standard in California.

I work closely with energy companies that produce or are required to blend renewable fuels on both sides of the border. It's this international renewable fuels perspective and how it relates to Canada's ongoing economic competitiveness that I hope to offer to you today.

Canada is an energy-dependent economy. As a country, we're a superpower in energy production, we're an expert in fuel distribution and a very heavy fuel user. This is fundamental to our economy, our climate commitments and the background needed to properly assess the risk and the opportunities for Canada given the U.S. Inflation Reduction Act.

Committee members already know how intensely competitive, trade-exposed and regulated the Canada-U.S. fuel market is. Canadian biofuels are not an exception. The U.S. IRA is proposing to invest $369 billion U.S. in clean fuels. It very well may be a once-a-lifetime investment bonanza for American renewable fuel producers and firms.

To give a few examples in the program, American ethanol producers will be subsidized $115 Canadian per tonne for implementing carbon capture and storage. In Canada, there's a proposed one-time investment tax credit, the details of which are still to be determined. Biomass diesel can get a production tax credit of up to 36¢ Canadian per litre if it's produced in the United States. Sustainable aviation fuel produced in the U.S. can get up to a 63¢-per-litre subsidy. Here in Canada, the credit is zero. Lastly, clean hydrogen production in the U.S. can get up to a $4.05 Canadian-per-kilogram production credit under the IRA. In Canada, there are no production incentives, though the details of a 40% investment tax credit is being considered.

Renewable Industries Canada appreciates that it might not be practical to attempt to match the windfall offerings of the U.S. IRA outright, but it can be a means to level up our thinking and make our policies more effective and more competitive. At the same time, making poor choices can be as much a detriment to economic growth as inaction. Caution must be taken to avoid pitfalls and false assumptions under the guise of competition.

With this in mind, RI Canada has a short list of recommendations, which I'm happy to elaborate on in the committee questions.

First, investment tax incentives are not production incentives. Production incentives, like the ones in the U.S. IRA, pay out, and continue to pay out, based on the amount of fuel produced. An investment tax credit, like what is being considered for some clean fuels in Canada, is essentially a one-time refund of a portion of the investment costs. Both have benefits, but policy-makers should be realistic and properly recognize that these credit mechanisms are different. They are not equal and are not perfectly interchangeable.

Unlike some U.S. incentives, the production credit will only be available to U.S. producers and will apply to products used in the United States and products exported to other countries. Without a targeted and effective Canadian credit mechanism, it becomes likely that future renewable fuel production will be built predominantly in the U.S., and if history repeats, the IRA production credits will continue well beyond the two years that are announced in the bill.

● (1125)

Second, the more that policies recognize the difference between carbon intensity and activity, the more competitive Canada can be.

Canadian programs like the clean fuel regulations and the price on carbon do a better job of recognizing the benefits of low-carbon fuels, but they are not a solution to competitiveness. U.S. producers that export to Canada will get the benefit of both the production credits and any benefits in Canada from having a lower carbon intensity. Canadian producers of low-carbon fuels exporting to the United States will get neither.

Third, we could go a long way by accelerating and deepening the policies Canada already has. The government's clean fuels fund will be helpful for the development of new technologies in Canada. It needs to be rolled out quickly so that it can play a role in producing the fuels that Canada will use to meet our 2030 clean fuel regulations requirements.

Finally, any progress we make can be undone if we inadvertently weaken the market demand signals here at home. Clean fuel regulations will be an important part of reducing the GHG emissions for the transportation sector. The regulations are not the most aggressive in the world, or even in Canada. It's important that there be no backsliding and weakening of the regulations. Any additional credit-generating opportunities that are added to the existing regulations will not produce further emission reductions, but will rather just change where the reductions come from.

In the U.S. renewable fuel program, when they export renewable fuels they do not count toward their domestic renewable fuel targets. Canada—

The Chair: I'm sorry, Mr. O'Connor, but I have to interrupt. Thank you very much.

Mr. O'Connor: I've finished—

The Chair: Any remaining comments can possibly be delivered while you're answering questions from the members who are anxious to get started on the question period.

We have Mr. Seeback for six minutes, please.

● (1130)

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

It's nice to see you again, Mr. Bradley. We've spoken at several committees about electric generation. I want to talk a little about that. As you mentioned, as we're doing this transition we're going to decarbonize the electric grid, but we also have to expand the electric grid at the same time. We probably have to double or triple that if we're going to get to the zero-emission vehicle standards.

On that, at this committee Mr. Kingston said that we're quite behind on the charging infrastructure and the actual number of chargers.

When we talked at the last committee about the expansion of the electric grid and how we're going to expand it, Mr. Gorman said, "This question keeps me up at night."

I have asked you about this, and you said it's not really the federal government's responsibility to build out the electric grid. But when the federal government is mandating zero-emission vehicles, the electric grid is going to have to be expanded.

This is going to cost a lot of money. For example, in Ontario, OPG is already $15.1 billion in debt, so if one were to just say to OPG that it needs to double its electric grid, where will the money come from? It is the same thing all across the country.

Do you agree that the federal government is going to have to take a role in this? This is a national project of mandating zero-emission vehicles, and the government says we're going to have all this electric battery capacity here, it's going to be wonderful, but we probably need to be able to plug the cars in somewhere and generate the electricity.

What are your thoughts on that?

Mr. Francis Bradley: Thank you very much for the question.

It is the critical question, absolutely. When we look at a future that will require two to three times more electricity to be able to meet our 2050 target, how are we going to do that? How are we going to achieve that?

The short answer is yes, absolutely, there is a critical role that the federal government needs to play. There is a role that every level of government needs to play. The kind of effort that is going to be required to triple our electricity capacity, to decarbonize the economy between now and 2050, is going to be absolutely transformative.

It isn't simply a matter of supporting charging infrastructure for electric vehicles, as you point out. It also is a question of where the electricity is going to come from, where's the transmission going to come from, the distribution networks, and so on. This is certainly something we are very much seized with within the sector.

Precisely what is the role of the Government of Canada? This is one thing that we're very interested in getting a handle on. For several years, one of the things we've been asking for is a national electrification strategy so that we have a very clear idea of exactly where the federal government will be stepping in.

There have been very significant actions that the government has taken to assist in it, but it hasn't all been stitched together in an overall and coherent strategy.

Mr. Kyle Seeback: If it doesn't get stitched together, what are the chances that we're actually going to meet any of the objectives? If the government doesn't take the leadership role, which to this point it doesn't seem to be taking, how are we going to stitch this all together?

Mr. Francis Bradley: Yes, I would agree. Without a clear idea and without a clear plan, it's difficult to see how we will all arrive at that destination, which is again why we've been asking for several years now for a national electrification strategy that we can all get behind—

Mr. Kyle Seeback: It may be why Mr. Gorman says it keeps him up at night.

Mr. Francis Bradley: Mr. Gorman and I are on the same floor in the same building. The same things keep me up at night that keep Mr. Gorman up. I think everybody in the electricity sector is very concerned about our ability to meet those commitments. It's why I continue to talk about how many days there are until the end of 2035.

Mr. Kyle Seeback: Right.

Mr. Francis Bradley: We recognize the urgency in this, absolutely.

Mr. Kyle Seeback: I wish it would keep the government up at night.

I want to ask Mr. O'Connor about the following.

Production incentives, you said, are much better than investment tax credits. I want to give you the opportunity to expand on that and why it's going to be so critical for Canada to do something better than their investment tax credits if they want to be competitive with the United States.

● (1135)

Mr. Don O'Connor: With production tax credits, for every litre you produce, you get funding. In the U.S., it goes through the tax system, but it's repayable, and they have direct pay, so it's a direct government incentive for every litre you produce.

Investment tax credits are built around the amount of money that you've invested. They are not related to the cost of production. When you have fuels that cost more than the fossil fuels that they are replacing, because they have lower carbon intensity, they need that help to level the playing field.

Mr. Kyle Seeback: And a business—

The Chair: You have 27 seconds remaining.

Mr. Kyle Seeback: Thank you.

What number of times out of 10 would a business choose production incentives over investment tax credits—nine out of 10, or 9.5?

Mr. Don O'Connor: Ten out of 10.

The Chair: Thank you.

Mr. Arya, the floor is yours, for six minutes please.

Mr. Chandra Arya (Nepean, Lib.): Thank you, Madam Chair.

This Inflation Reduction Act of the U.S., combined with the CHIPS and Science Act, I think is the bold new industrial policy of the United States. We talk about friend-shoring. This is actually implementing the strategy of the United States for friend-shoring or on-shoring. This is huge.

As previous witnesses have said, as a small country, we cannot react line by line. We cannot match dollar for dollar, but we have to react smartly. Not everything goes to the U.S. just because of these two acts. The CHIPS and Science Act has put $200 billion into 20 new technology centres for semi conductors, energy transition, biotechnology and so on. However, we do have certain strategic advantages.

Recently, there were press reports that the Pentagon, the U.S. military, wanted to invest in Canadian critical mining projects, which is not news to some of us because, since 1956, in different production sharing agreements, Canadian companies have been considered as U.S. domestic companies for any defence purchases. However, my question today is for Ms. Claire Citeau.

Welcome back. It's nice seeing you again.

First, I have to commend the Canadian Agri-Food Trade Alliance members because yours is the only group that I can say takes very practical advantage of the free trade agreements that Canada has been signing for so long. Whether it's with the European Union or with Asia-Pacific countries and the ongoing discussions that we have. Your members have been very active. They take all the opportunities that the federal government and the provincial governments open up for the Canadian businesses.

The manufacturing investment you mentioned is not a surprise to us. You said that 31 OECD countries have invested $1.7 trillion, whereas Canada's portion is just 1.2% at $22 billion.

We had the aluminum industry association here and the steel industry. These are the major industries where we should seek investment to grow manufacturing capacity. During the last 15 to 20 years, however, both of these sectors, the aluminum sector and the steel sector, have not added any new production capacity. These are all foreign-owned companies that consider Canada to be just one of their branch offices for catering to Canadian market and mostly to export to the U.S. market, but with no exports to Europe or the Asia-Pacific countries that we are working on. Your sector, your members, have been doing a wonderful job on that.

Do we need to have a very clear-cut industrial policy focusing on manufacturing?

Ms. Claire Citeau: First off, I'd like to thank you for your comments earlier.

Our members take pride in feeding families in Canada and around the world precisely because of market access through free trade agreements—and not necessarily just those, but also through provisions provided by the WTO. There are many countries around the world that we export to where we don't necessarily have a free trade agreement. A free trade agreement allows a framework that provides better access and reduces tariff and non-tariff barriers. We've been leveraging free trade agreements in the CPTPP region across North America. With Europe, it has been challenging, even though our exports to that region have increased. We have encouraged the committee and others to consider reviewing free trade agreements now that Canada is in the midst of negotiating a number of free trade agreements with the U.K., Asia and Indonesia. Perhaps they can look at how well those free trade agreements implemented in recent years are doing, and profit from lessons learned and different ideas to apply as we move forward with negotiations.

In terms of the food manufacturing sector, certainly the level of investment, as pointed out by our food processing member, compared with that in the U.S.—a large competitor and also a large customer—reflects a disadvantage, and impacts—

● (1140)

Mr. Chandra Arya: I'm sorry. I have a question for Mr. Bradley.

Mr. Bradley, you may know that the federal government recently signed an agreement with Ontario on the Canada-Ontario regional table that seeks to align the resources and what is on the timelines to work together on the regulated processes for five key sectors, including clean electricity, great nuclear energy, critical mineral supply, and sustainable forestry.

What do you think this Canada-Ontario regional table should focus on? How should this move forward?

Mr. Francis Bradley: We're hoping that the regional tables will be the critical enabler to ensure that there is coordination between the various levels of government. What we've seen up until now is that there's been a lack of alignment between federal, provincial and municipal governments. We're hoping that all of the regional tables, as they stand up, will be able to bridge that gap and be enablers for the energy transition, but it remains to be seen. However, we remain very hopeful.

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

We'll move on to Mr. Savard-Tremblay for six minutes, please.

[*Translation*]

Mr. Simon-Pierre Savard-Tremblay (Saint-Hyacinthe—Bagot, BQ): Thank you, Madam Chair.

Thank you to all the witnesses.

And good morning to my colleagues.

I think I will direct my question to Mr. Scholz of the Canadian Association of Energy Contractors, Mr. Wilson of the Canadian Renewable Energy Association, and Mr. Bradley of Electricity Canada, as I assume they are the three who are best-placed to answer.

We know that Canada has access to deposits of natural resources needed for batteries. Quebec, in fact, has good mineral potential, whether it be lithium, nickel, cobalt, graphite or silicon.

According to the US law, for a vehicle to be eligible for the maximum credit of $7,500 US dollars, a certain proportion of its parts must come from North America. This proportion will gradually increase to 50% by 2024 and then to 100% by 2028. These are the objectives they set, and they are good ones. Of course, we always want to encourage our own businesses. However, according to some auto makers, meeting these requirements will be very difficult because mineral production will not meet the demand as estimated and assessed. This could change, but it is how things are at the moment.

According to the US law, the credit for purchasing zero-emission vehicles can also be applied if a certain percentage of the content is recycled material. There is therefore the issue of recycling.

Would it not be in our interest to develop a recycling strategy and the sector here?

[*English*]

The Chair: Who would like to take that question?

[*Translation*]

Mr. Simon-Pierre Savard-Tremblay: Don't be so shy, please.

[*English*]

Mr. Mark A. Scholz: Madam Chair, when it comes to the recycling piece, I would not be a subject matter expert on that question.

● (1145)

The Chair: Thank you.

I think Mr. Bradley is prepared to attempt to answer it.

Mr. Francis Bradley: Yes. Certainly.

Like the other witness, I'm not a direct specialist in this area, but I would agree that certainly we should be working towards that ability. We're even now trying to figure out what happens with those batteries. There may be a role for them as grid storage in the future. I would agree entirely that there must be some way in which we can build them back into the supply chain that is so challenged today.

The Chair: Thank you.

[*Translation*]

Mr. Simon-Pierre Savard-Tremblay: I would like to hear from the third witness I had asked my question to.

[*English*]

The Chair: Go ahead, Mr. Wilson.

Mr. Evan Wilson: Yes. I would add to that, although it's not necessarily my area of expertise.

At CanREA we also would emphasize that there is a very central importance to government funding to support recycling in order to support a resilient critical minerals strategy. We could say that when it comes to the material that's required for batteries or even for wind and solar, we think there really is an opportunity for recycling to play a very critical part in a critical minerals strategy. We think that recycling can and should be treated as a raw mining source and that government support for recycling facilities, technologies and processes will be essential.

I think we're really early days in the development of strategies and opportunities for recycling. There are opportunities here not only as far as waste diversion goes but also critical minerals. Government strategy or government support can help us to remain competitive overall in providing the resources for batteries and for other technologies if there is an opportunity to take a really creative and strategic approach to recycling.

[*Translation*]

Mr. Simon-Pierre Savard-Tremblay: You represent the renewable energy sector, the energy sector and the electricity sector, respectively. We know these are some of the sectors that probably have the most to lose from the inflation-reduction bill in the US. This must worry you.

Most of you focused your remarks on what should be done here, to support our initiatives. In other words, it may be a way to respond to what it is being implemented in the US. That being said, until there is proof to the contrary, we still have diplomatic representations.

Is there anything else we should be pushing further on, looking for or changing in the US law? Do you think we should we adopt a specific position with US representatives?

[*English*]

The Chair: Does anyone feel comfortable attempting to answer that question?

I'll go back to Mr. Bradley again.

Mr. Francis Bradley: Sure. I think it's a very interesting question.

It is not where we as a sector and association have focused, though I think it certainly is something that the Government of Canada should be thinking about in terms of what their approach is. We've approached this in a very practical manner. We are looking at what we can do here in the environment that we have the ability to change. We don't tend to lobby for changes with governments elsewhere.

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

Mr. Cannings, you have six minutes.

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

Thanks to all the witnesses who are today.

Mr. Wilson, I want to start with a quick clarification. You mentioned the low cost of solar and wind electricity, but I sit on several committees, and whenever we have witnesses from other sectors, especially nuclear, we get statements that wind and solar cost three or four times what nuclear costs, for instance.

I'm just wondering if you could clarify that.

Mr. Evan Wilson: Thank you for the question.

I think that it is really critical to understand the low-cost environment that we are in, in the renewable energy sector. Looking at contracts that have been signed in Alberta via the renewable electricity program, we're talking about $40 per megawatt hour or about 4¢ per kilowatt, which is the cost of wind electricity in Alberta, for instance.

Looking at the pool price or the market clearing price for electricity overall in Alberta, you're looking at over $100 per megawatt hour, which is what the average pool price has been over this past year. Certainly speaking to what the wholesale price of electricity is in Alberta versus how affordably you can deploy that same megawatt hour if it comes from wind, you're talking about quite a low cost.

As far as solar goes, looking at the recent experiences with procurements in Saskatchewan, we've seen solar coming in at around 7¢ per kilowatt or $70 per megawatt hour and those are results of a procurement from several years ago. The costs have continued to fall in the time since those were rewarded.

I can't speak to what the costs are for nuclear, but I think that any observer of the electricity markets across the country could understand that wind energy and solar energy are the lowest cost, non-emitting megawatt hours that can be put onto the grid. Certainly, when it comes to wind in western Canada, which is a very critical and strong resource, you are seeing costs that are majorly competitive with any other source of electricity, whether emitting or not, on the grid.

Thank you.

● (1150)

Mr. Richard Cannings: Thanks for that.

I might come back to you if I have time, but I want to turn to Mr. Bradley.

You mentioned how we need a national electrification strategy and how critical that is. I'm just wondering if you could maybe tell us what, in your mind, the top three priorities for that would be, outside the obvious need to produce more electricity. What do we have to do around that to make the grid work and make everything work together? What are the top three priorities there?

Mr. Francis Bradley: With regard to the top three priorities for an electrification strategy, I think the first priority would be having a clear understanding of, to put it bluntly, who pays and who pays for what. The desire to lower our carbon footprint is something that will fall disproportionately on different people depending upon what the resources are that are available in their jurisdiction.

If decarbonization is essentially a public good, then the question is to what degree that should be borne by the ratepayer versus the taxpayer. When costs are borne by a ratepayer—that is to say, it goes on somebody's electricity bill—it also falls disproportionately to people who are lower income, as opposed to when it's borne by the taxpayer where there is a more progressive approach to that.

I think the first thing is a clear understanding from the federal government's perspective of what the costs are going to be and how they're going to be borne.

I think the second thing is a road map of how the different levels of government are going to be able to work together. We talked earlier about these regional tables, and they may be a critical piece of how we can get alignment across different levels of government.

The third piece, and part of the road map, should be an indication of how we're actually going to get things built, and get things built more easily. It is hugely complicated to build infrastructure, whether it is a transmission line, a hydroelectric plant or a wind to hydrogen plant, for example. There was a recent announcement of a proposed plant in Labrador that can be built in 18 to 24 months, but it's going to take eight to 10 years to get the permits and to go through all of the hoops that are required to build that. Clearly, being able to figure out how we can actually get things built more efficiently needs to be part of the road map as well.

The Chair: You have 30 seconds left, sir.

Mr. Richard Cannings: Mr. Bradley, what do you think about the need for interties between provinces? Is that something your association considers?

● (1155)

Mr. Francis Bradley: Yes. The future is going to require every type of non-emitting electricity. At the grid scale, we're going to need more hydro; we're going to need carbon capture utilization; we're going to need wind; we're going to need solar; we're going to need distributed energy resources, and we're going to need more transmission to be able to move this between different jurisdictions, absolutely.

The Chair: Thank you very much.

On to Mr. Carrie or five minutes, please.

Mr. Colin Carrie (Oshawa, CPC): Thank you very much, Madam Chair.

Thank you to the witnesses for being here.

Coming from Oshawa, I know that manufacturing is incredibly important to us in Ontario. With the study, I've become extremely concerned. We've heard some overall themes of concern, as repeated today, around the sense of urgency and certainty in policy.

Ms. Citeau, I believe you mentioned competitiveness.

We've heard from other witnesses that we have to stop these self-inflicted wounds. We've learned that we can't out subsidize the U.S.A. We had witnesses here before the fall economic statement. The auto parts industry said the IRA was the fix for the build back better bill.

We knew this was coming. It was passed on August 16. It was introduced in the United States, I think, last spring. Now we're finding out that a lot of this fix is going to be in the spring budget—a year after these messages have gone out to industry. It seems that's the problem. It seems that Canada is always responding and reacting instead of getting ahead of it.

Companies like Toyota were in front of us, and they've said that the window for investment is closing. They are concerned that firms will be penalized for choosing to build vehicles and batteries in Canada. The CME said the IRA could result in the flight of capital investment out of Canada to the United States. These things are understandable because if you're a company and you're going to make a once-in-a-generation investment, with the political climate in the U.S—the Republican Lindsey Graham made some statements—these incentives may only be there for a short period of time. We therefore wanted the fix in the fall economic statement. It looks like we're not going to get any clarity or certainty, at least not until the budget.

I'm very concerned. The Americans were even told that there's a naughty and nice list here in Canada. Some companies are naughty and get punished, whereas in the U.S. everybody is nice, so everybody can take advantage of these incentives.

I think my question would probably have to be to Ms. Citeau and Mr. Scholz.

What impact is the flight of capital flight out of Canada into the United States going to have on your industries?

Maybe we can start with Ms. Citeau and then talk to Mr. Scholz.

Ms. Claire Citeau: Overall, I think our members are asking that Canada have two things: a competitive access to global markets and also that it remain a competitive jurisdiction. Any investor, whether in Canada or around the world today, looks at where their best return on investment will be and where to access key markets.

Canada and the U.S., being integrated and so close to one another, compete quite a bit from that perspective.

On the food manufacturing side of things, yes, the level of investment does impact the competitiveness of the sector, and the IRA adds pressure. As I briefly mentioned, it's the same on biofuels. The IRA introduced a set of measures that will ultimately impact the investment climate in Canada and will perhaps discourage companies from investing in Canada or discourage Canadian companies from investing further in Canada or perhaps encourage them to invest elsewhere.

I think these questions will have to be looked at on a sectoral basis, whether food manufacturing, canola or biofuels. We're happy to have our members circle back, but perhaps a more definitive and precise policy—

Mr. Colin Carrie: Send that to committee because I have about a minute left, and I wanted to hear what Mr. Scholz had to say. Could you give us some policy recommendations before the budget so that we can give that signal of certainty to those investors? I'm worried we're going to be losing these once-in-a-generation ones.

Mr. Scholz, could you please elaborate on what impact it's going to have on your industry if we see this capital flight from Canadian markets? You did talk about some policy around the clarification for ITC and labour. Could you get those recommendations to committee if we don't have time to go over them today?

● (1200)

Mr. Mark A. Scholz: Yes, for sure. Thanks for the question .

At this point, I think it's difficult to determine or quantify what the true financial and investment impact is going to be. I think for the first time Canada has at its southern border Americans wanting to “one-up” Canada, particularly when it comes to clean investments.

One of the things I want to point out about our policy proposal, which I've given to the clerk, as well as complementing the clean technology investment tax credit.... What we're proposing is something that would allow Canada to be a pioneer, a trail blazer when it comes to the decarbonization of a critical industry, the energy services space. That is not only going to be continuing to develop lower hydrocarbon-based resources but will also be at the front lines of things like the lithium extraction in western Canada, hydrogen, geothermal, helium.

If you talk to anybody on this committee here, all of the witnesses, we're so aligned on so many issues because I think it's going to take a community of industries that will really have to work together in collaboration to achieve some of our clean-growth strategies.

Again, I think it's hard to say at this point and to really quantify what the impact of investment is, but in Canada there's a huge opportunity to make some critical investments in our space. That's what we're advocating for, and that will allow us to be trailblazers when it comes to resource extraction within our subsurface resources.

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

We're on to Mr. Miao for five minutes, please.

Mr. Wilson Miao (Richmond Centre, Lib.): Thank you, Madam Chair, and thank you to all the witnesses for your appearances today.

Mr. Bradley, to reach our goal of net zero by 2050, Canada's clean energy resources will require transformational investments to modernize our electricity grid, as you mentioned in your opening remarks. We heard about this from the Canadian Nuclear Association last week as well.

Can you expand a bit on the road that you see wireless technology playing in grid modernization.

Mr. Francis Bradley: Yes, absolutely. Thank you for that.

Again, that's going to be foundational as well. I talked earlier about needing all of these resources and all non-emitting resources. We're going to need hydro and wind and solar and distributed energy resources and so on. However, our ability to actually maximize all of those resources and to be able to do so in an efficient manner is also going to require a deployment of new technology, everything from AI to quantum computing by the time we get to 2050.

In terms of wireless technology, that is going to be really the kind of.... We're moving from a backbone of wires that simply move kilowatt hours to a backbone that's also going to be moving the information that will be required to manage this system in the future.

Mr. Wilson Miao: Thank you for that.

The next question I'd like to ask of Mr. O'Connor through the Chair.

What sort of economic spinoff do you anticipate that the clean technology tax credit laid out in the fall economic statement will have on Canadian renewables industries? Could this result in more jobs in renewable energy, as well as an increase in exports?

Mr. Don O'Connor: I'm not sure the investment credits will be large enough to offset the threat posed by the subsidized production in the United States. We have a number of projects in development in Canada that have not yet reached a final investment decision. I'm sure the fact that the U.S. production will come into Canada subsidized, thus lowering the selling price that a Canadian producer will achieve, could have negative impacts on companies when they go to make that final investment decision.

● (1205)

Mr. Wilson Miao: Could this result be more jobs in the industry, from your perspective?

Mr. Don O'Connor: We could have more jobs if these projects in Canada are actually finally built in Canada. There are a number of projects that have been announced, but at least the same number companies that are working on that haven't yet been announced. We're talking about investments of billions of dollars and 40-50 jobs per plant, that kind of thing, so there's big opportunity.

Mr. Wilson Miao: Thank you very much for your answers.

Next I would like to go to Mr. Wilson. In your report entitled “CanREA’s 2050 Vision: Powering Canada's Journey to Net-Zero” you referred to Canada as having untapped potential in wind energy. Could you expand on where you see this untapped potential for wind energy in Canada, and are there any barriers to having wind energy in Canada?

Mr. Evan Wilson: Thank you for the question.

When we talk about the untapped opportunity for renewable energy in Canada, we are really talking about opportunities that exist across the country. Right now we are in the midst of conversations and procurement processes really from coast to coast as we see conversations in Nova Scotia, Quebec, Ontario and Saskatchewan as well as a real boom in the deregulated market in Alberta.

Really when we're talking about the untapped resource, we are talking about the opportunities to deploy wind and solar in all of these jurisdictions. There is likely to be a pretty great opportunity in provinces like Alberta and Saskatchewan and Nova Scotia, where there are highly emitting grids and there is opportunity to deploy wind and solar to reduce emissions in those grids as we move forward to net zero 2035 for our grid. Really we do see lots of opportunities here.

I would say that in the context of this conversation, really the competitiveness challenge that we are seeing from the Inflation Reduction Act in the U.S. is a barrier, or it will become a barrier very rapidly. That's why we advocate for the government to have a rapid response both on the programming side—and we have seen pieces of that with the fall economic statement—and on the policy side. If we get a longer-term view of the target price, that does send a signal to bring on renewable energy in the provinces that require a heavier decarbonization lift.

The clean electricity regulation will send a signal to all of the system operators to begin preparing their plans and their grids for a decarbonized system. Then we think on the programming side seeing the launch of the refundable investment tax credits and the finalization in the 2023 budget will be very helpful. We would also be eager to see the launch of the pan-Canadian grid council so we can talk about some of the great modernization that is required to ensure that we can affordably and effectively reach net zero by 2035.

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

We go now to Mr. Savard-Tremblay for two and a half minutes.

Go ahead, please.

[*Translation*]

Mr. Simon-Pierre Savard-Tremblay: Thank you, Madam Chair.

My next question will again be for Mr. Wilson of the Canadian Renewable Energy Association.

A number of witnesses appearing before the committee have told us about their concerns in their respective fields. They fear a loss of investments, and even the relocation of production and activities to the United States, if the American inflation reduction bill passes.

Do you share these kinds of concerns for your sector?

[*English*]

Mr. Evan Wilson: Yes. The fear for our sector is that the benefits and the long-term policy certainty or the long-term program certainty that comes out of the IRA cause quite a number of our members to have concerns that capital and financing that they require to deploy and operate their projects in Canada will take more interest in opportunities in the U.S. Quite a number of our members are multinational organizations with development teams across North America, so you have project developers who are competing with their own colleagues in house for access to board decisions to move forward with projects, and quite a number of these members are saying it's becoming a lot more competitive when they are making presentations to their board about making final investment decisions. The IRA and the benefits of the IRA and the long-term vision that is provided by the IRA are just making the U.S. a focal point, and it's making it very difficult for us to remind decision-makers that there are opportunities here in Canada.

That's why the IRA response is so critical, because even within organizations you're hearing developers who are located in Canada seeing the senior executive and senior boards' attention going to the U.S. because it looks as though the U.S. not only has a better and more generous environment but also is paying more attention to renewables, and it seems to be a place for longer-term investment.

I'm certainly hearing this, but I'm also hearing from members that a full-voice response from Canada—which we saw the beginnings of through the fall economic statement—really allows them to refocus decision-makers on the Canadian market, and we think that a very quick response here can effectively bring investments into the country.

● (1210)

The Chair: Thank you.

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

Mr. Richard Cannings: Thank you.

I'm going to continue with Mr. Wilson and basically follow up on the question I asked Mr. Bradley about the strategic steps the federal government has to take. He asked who pays and how we are going to build out this infrastructure. Perhaps talk about what your feelings are in terms of what the federal government should be doing to help build the infrastructure we'll need, whether it's by having interties that will balance electricity demands between provinces or renewables and base load, smart grids, energy storage.... Could you just give us some thoughts on that, on what you think the federal government should be doing to actually help build that infrastructure?

Mr. Evan Wilson: Thank you for that question.

I would echo the commentary about the importance of the regional tables for those discussions. Every province is going to have different needs when it comes to decarbonization, specifically decarbonization of the grid.

I mentioned earlier that we do see opportunities from coast to coast to coast, but we also think and understand that the need to decarbonize the grid, let's say in Saskatchewan, is going to be different from the infrastructure needs to meet growing demand in Ontario. We think that, overall, the work that we can see coming out of these regional tables is going to be critical, and it is going to be what, hopefully, sets the strategy for what's needed in the individual provinces.

We also urge the government to launch the pan-Canadian grid council that was promised in the 2021 platform. We expect that bringing together experts from all across the country, experts from across industry, academia, indigenous communities, provinces and municipalities to talk about what these priorities should be in order to develop a grid strategy or a grid modernization strategy will be very critical.

Right now there are a lot of conversations going on, but they're happening in a lot of different rooms. Having a pan-Canadian grid council that can speak holistically about everything we need to do to bring the country together on this heavy lift will be critical as we get closer and closer to 2035, and the best time to start that is now. We'd like to see that launched to start discussing the strategy in earnest.

Mr. Richard Cannings: Thank you.

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

We will now move to Mr. Baldinelli for five minutes.

Go ahead, please.

Mr. Tony Baldinelli (Niagara Falls, CPC): Thank you, Madam Chair.

I'd like to thank the witnesses for being here today. It's been incredible testimony.

It's an important study on the Inflation Reduction Act. We're looking at the U.S. spending $390 billion over the next decade to seek a 40% reduction in emissions by 2030.

Several witnesses have come forward. Even just last week, Elizabeth Kwan from the Canadian Labour Congress called this bill and this legislation a “game-changer”. The Canadian Steel Producers said that the U.S. is now taking an “enabling” approach to draw in investment, to reach not only its economic goals but also its climate goals. They're almost moving together in unison.

Bob Masterson, the CEO of the Canadian Chemistry Industry Association, said that the Americans have “unleashed the power of private capital” to decarbonize while Canada is still stuck in debates over strategies and plans, which is disappointing.

I'd like to go to Mr. Bradley first and talk about electricity. Of course, in my home province of Ontario, 60% of the grid is nuclear energy. There were some discussions by the Province of Ontario about taking Pickering off in 2024. Well, that's 14% of the grid. I believe the province has delayed that decision to 2025. They're looking at whether refurbishment can take place and are drawing in investment to do that.

How is that investment climate now looking because of the IRA? It would almost seem as though foreign companies—for example, Bruce Power, which was British Energy that came in and took over in Kincardine—made that decision. The draw for investment to do the refurbishment of Pickering is now a lot less, would you not agree, because of the IRA?

● (1215)

Mr. Francis Bradley: I think the IRA, indeed, as you suggest based on what you have heard from other folks, is a game-changer. I'm hoping the fall economic statement is the first step in an effective Canadian response. We see that, really, as a first step, and we're waiting to see what comes out in budget 2023. Hopefully, we will have a more full-throated response.

There certainly is the possibility that investments in these areas will flow south if the investment climate is more favourable in the United States. Even in the electricity space, there are a number of Canadian electricity companies, both public and private, that have assets in Canada and the United States. We'll have to make decisions about where those investments are going to be made.

We are hopeful that budget 2023 will rebalance that in favour of seeing those investments remain here in Canada.

Mr. Tony Baldinelli: Is that something that could be broadened as part of your recommendation for a national electrification strategy, taking in not only those considerations but also those critical decisions that need to be made in terms of the grid, and when those have to be made? There are the transmission lines. You had talked about some of your recommendations. The government needs to allow support for government agencies—for example, the OPGs and our local municipal electric utilities—to be able to participate in programs. That's going to be critical. If everyone is going to have an electric car tomorrow, we don't have the capacity. All the transformers in our neighbourhoods would blow. Who's going to make those investment decisions to upgrade those transformers, not to mention getting that electricity to those homes? That all needs to be considered.

Again, there are the large projects. For example, as I said, with Pickering itself, if the decision is made to refurbish Pickering, that's 14% of the Ontario grid. If we take that out, how are we going to replace that? I come from Niagara Falls, where we have Sir Adam Beck I and II, but that's only 2,200 megawatts, with almost no more potential to expand the production there.

Those are the decisions that we need to make. Those are critically important. I was hoping you could elaborate on those decisions that the government expand; for example, is it green bonds that you're saying the government should allow large Ontario government operations and local municipalities to be able to draw into?

Mr. Francis Bradley: As I said, we're working on what we will be proposing specifically in budget 2023, but there absolutely needs to be something in parallel with ITCs for those non-taxable entities.

With respect to the challenges you see in Ontario, actually, relative to some other jurisdictions, Ontario is starting in a pretty good place. Ontario is already 92% non-emitting. The fact that you recognize that it's going to be challenging in Ontario—you can imagine how challenging it would be in some jurisdictions that do not already have the non-emitting system Ontario has today. It is absolutely a challenge.

One of your other points was about whether we will have the system in place if everybody goes out and buys an electric car tomorrow. The good news—or the bad news—is that you can't go out and buy an electric car tomorrow. I've been on a waiting list for 21 months. What it means, though, is that the deployment will be gradual. We need to recognize that we won't one day flick a switch, the entire economy will be electrified and we will be behind the eight ball. It is a gradual deployment, but we have to start today to make sure we're building that future.

● (1220)

Mr. Tony Baldinelli: Thank you.

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

Ms. Dhillon, you have five minutes, please.

Ms. Anju Dhillon (Dorval—Lachine—LaSalle, Lib.): Thank you, Madam Chair.

Thank you to all our witnesses for being here today.

This is a question for anyone who wishes to answer. We've been discussing the Inflation Reduction Act in committee for a number of weeks now, as you know. Is there is anything in the Inflation Reduction Act that we haven't discussed and that the government should pay particularly close attention to?

Thank you.

The Chair: Would anyone like to answer Ms. Dhillon's question, please?

Ms. Claire Citeau: I would just say that the possibility of new programs being announced down the road would be something to keep an eye on.

Ms. Anju Dhillon: Does anyone else wish to add to that?

Mr. Evan Wilson: Perhaps I could jump in as well.

I just want to reiterate something I said in my opening commentary about ensuring that we have, especially on the renewable electricity or the net-zero grid 2035 question, not just a program conversation here but also a policy conversation. Prior to the IRA, Canada was a real leader in decarbonization of the grid via both the carbon price and the OBPS as well as the conversations around clean electricity regulation. We are looking forward to more conversations about programs coming out of the upcoming budget. We also want to ensure that we keep our momentum going on carbon pricing and see a longer-term carbon pricing framework so that we can make long-term investments in renewables. We also want to see the publication of a clean electricity regulation that sends a strong message that we are aiming for a 2035 net-zero grid and that we are looking to achieve a 2035 net-zero grid.

We think the response should be a combination of both policy and program approaches, so while we're discussing programming, we should also be talking about the policies that will continue to drive investments in renewable energy across the country.

The Chair: Mr. O'Connor, do you want to supply some information as well?

Mr. Don O'Connor: Yes, I would say that we need to look at the resulting change in trade patterns. In the case of biomass-based diesel, there is an existing blenders tax credit that's available to Canadian companies that export to the United States. That program will disappear at the end of 2024 to be replaced by the clean fuel production credit, which will mean that those Canadian companies will no longer have equal access to the U.S. market.

We're going to see some changes in the trade patterns because of some of the protectionist aspects of the IRA.

Ms. Anju Dhillon: Yes, please go ahead.

Mr. Francis Bradley: Yes, certainly, and thank you for the question. I think it's an interesting one. What have we not thought about?

What I would add is that instead of simply thinking about one-off investment decisions, this isn't a matter of whether a single investment will be made in Canada or the United States. These have knock-on, long-term effects, and I think back to the late 1960s and throughout the 1970s into the 1980s and 1990s when we built an ecosystem in Canada to support our CANDU nuclear system. That ecosystem, in fact, included hundreds of different companies, products, services and so on. We should be thinking in terms of the same sort of future. Are we going to be building the ecosystems over the longer term here in Canada to support that energy transition for those new technologies?

It isn't simply a matter of whether a particular project is going to the United States or Canada, but are we, over the longer term, going to build an ecosystem equivalent to what we did with CANDU for hydrogen, small modular reactors, carbon capture, wind or storage?

● (1225)

Ms. Anju Dhillon: I thank you so much for answering that.

Ms. Citeau, I have a question for you as well.

The Chair: Be very brief, please, because you have 15 seconds.

Ms. Anju Dhillon: Okay.

Overlooked is the support for farms and farmers in the U.S. Inflation Reduction Act. Is there potential for the IRA to affect the competitiveness of Canadian agriculture?

Ms. Claire Citeau: There are two areas identified by our members for primary study, and they are continuing to do their own analysis on the canola biofuel front that I spoke to and the food manufacturing side, which do seem to be adding a pressure overall.

The Chair: Thank you very much.

Go ahead, Mr. Martel, please.

[*Translation*]

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

Thank you to the witnesses for being here.

My question is for Mr. Scholz.

During testimony before the committee on November 22, Mr. Masterson, of the Chemistry Association of Canada, told us that “the real value of the IRA's incentives and the biggest challenge for Canada is the transparency and certainty provided to investors.” He also reminded us that “we pay a very steep and ever-steepening carbon price.”

He said there are a few, very lucky industries that are on the government's preferred list and get “hand-picked access to federal grants, tax incentives, loans and other incentives to assist with decarbonization.” Mr. Masterson also explained that “the criteria to get on the list are not transparent; they are not clear; and they are not available to everybody,” and that this means that not every industry can build them into a business case.

In your opinion, Mr. Scholz, is the industry you represent one of the ones in the government's good graces?

[*English*]

Mr. Mark A. Scholz: Well, certainly I think one of the things we've pointed out within our white paper is that there is a huge opportunity within our sector to support decarbonization efforts not only within traditional hydrocarbon extraction sectors but, I would say, sldo more broadly within what we would define as subsurface extraction commodities or sectors.

One of the interesting things about our industry—and I have to kind of differentiate us from our customers. Our member customers are energy producers. They're the ones who would attract capital into Canada and deploy into either the hydrocarbon-based industries or things like lithium, helium, geothermal, etc. My members are the ones who ultimately hire people and have the equipment and technologies and processes to basically help producers extract those resources. What's really interesting about our sector right now is that although the majority of our industry is in the hydrocarbon-extraction sector, we've seen a huge increase in the extraction of lithium, geothermal and helium as well, which are going to be on the front lines of natural gas, which is going to be the feedstock for blue hydrogen.

When we talk about a transition with our people and our businesses, all roads lead directly through our industry, so we are really looking for support from the government to help us move in that direction. Over the last seven years our particular industry has been completely decimated. We've had a lack of capital entry into our business. That is a function of pricing within the market and how much capital is deployed by our customers.

We're starting to see some sustainability and growth in our industry. If you want to grow the battery technology sector and you want to grow other renewable electricity sources like geothermal and industrial uses for hydrogen through blue hydrogen feedstock, you need our industry in order to do that. Our white paper is saying, “Look, partner with this industry. We can get you there.” We have ready technologies we could deploy in a very short period of time that could decarbonize our industry anywhere between 85% to 90% in a very short period of time. Some areas are going to be tougher to decarbonize because we are operating in very remote locations.

So we're asking for a movement from diesel to natural gas as we move towards net-zero solutions. There is a huge opportunity here to take our workforce along the journey of this transition, but we can't do it without collaboration, particularly with the federal government. That's made clear in our decarbonization pathway in our white paper.

● (1230)

[*Translation*]

Mr. Richard Martel: What you are saying is interesting, Mr. Scholz.

[*English*]

The Chair: You have 25 seconds remaining.

[*Translation*]

Mr. Richard Martel: I have another question for you, Mr. Scholz.

At this committee, we have talked at length about incentives for the electric power sector and about developing a batteries pipeline, from resource extraction to the production of electric batteries.

Canadian businesses drilling for certain critical minerals wonder whether increasing the critical mineral exploration tax credit to 30% is the best way for the federal government to increase its support.

[*English*]

The Chair: Can we get a brief answer?

Mr. Mark A. Scholz: Was that directed to me?

[*Translation*]

Mr. Richard Martel: Yes, my question is to you, Mr. Scholz.

I am talking about the 30% tax credit for critical mineral exploration. Is this the best way to get more support from the federal government?

[*English*]

Mr. Mark A. Scholz: I think it's getting us closer to what we need. It's very unclear at this point whether or not our membership's drilling and service rigs would be able to qualify for the clean technology investment tax credit. We're having discussions with the federal government to see if that is in place for our industry.

The other piece that I think is going to be really critical is to allow this industry to have a bit of a carve-out for fuel switching from diesel to natural gas. That is still a huge emissions reduction game-changer for our industry, but, again, that's going to put us at about a 20% to 30% reduction. We have to make sure the technologies that are going to allow us to get there are included in some of these investment tax credit programs. We've asked for a 50% refundable income tax credit. If we're eligible for the 30%, it will certainly get us closer, but we have a 2030 target we have to make. Particularly in the oil and gas sector, we have a 42% reduction target we have to meet by 2030. We're seven years out.

The Chair: Thank you very much.

Thank you, Mr. Scholz.

Mr. Mark A. Scholz: If we want to be serious about reducing our emissions, we have to have this in collaboration with the federal government.

The Chair: Mr. Virani, go ahead, please.

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

Thank you to all of the witnesses.

I'm going to start with Mr. Wilson.

Mr. Wilson, in your opening and again in response to Ms. Dhillon you mentioned important policies that we need to remain focused on, including the carbon price. You said on two occasions that it would be good for market and investment decisions, given that the carbon price serves as a lever to indicate to industry where they should and should not be putting their money, to actually prolong it and to have a projection about the carbon price and its future going all the way to 2040.

Can you just elaborate upon how the carbon price serves to incentivize industry to make decisions about clean investments?

Can you provide that answer in about 45 seconds? I have multiple questions.

Mr. Evan Wilson: Yes. I'm happy to do that.

Basically, the way to look at it is that we have a 2035 net-zero goal right now. We expect that wind and solar will be drivers to getting us to net zero.

We see a lot of demand from corporate buyers to go into long-term contracts, especially in Alberta, with wind and solar providers. Those contracts are based on the carbon price. They're a hedge against the carbon price for a lot of these companies that are going into these agreements. Right now, if we were to sign a 15-year contract or even a 10-year contract, we wouldn't know what the carbon price was going to be in 2032, 2033, 2034 or 2035. It becomes more difficult to sign these long-term contracts when there isn't an understanding of what carbon price will be part of the determination of the value of those contracts.

Likewise, we want net zero by 2035. We're driving to 2035. We don't have clarity on the carbon price for the five-year gap between 2030 and 2035. That makes it hard to determine what the revenues will be for these projects.

Mr. Arif Virani: Thank you.

I think that's an important segue. We heard a lot from some of the Conservative members on the committee, even today, about the importance of driving in unison towards those clean-grid objectives. I know that 85% of the grid is already clean, and that's 92% in Ontario, as Mr. Bradley pointed out. I think the carbon price provides that economic lever to spur further investments to get to the goal we're all striving for.

I want to ask you about some significance on the trade front. I'm staying with you, Mr. Wilson.

You mentioned solar and wind a number of times in your presentation. We know that in June Minister Ng was successful. There was an agreement announced with respect to U.S. solar safeguard tariffs being removed. I'm wondering if you could comment. Do you have any understanding of how the removal of those solar safeguard tariffs by the Americans on our products going to the United States impacts the solar industry?

I'll turn it over to you for 30 or 40 seconds.

● (1235)

Mr. Evan Wilson: I'll have to get back to the committee with some follow-up in writing on that. Unfortunately, I can't speak to that off the top of my head today.

Mr. Arif Virani: That's fine.

Mr. Scholz, you mentioned the white paper that your group did with respect to the transition of the industry as well as the transition of workers.

I noted that you mentioned the secretariat. There are three aspects of it that are covered in the fall economic statement. There's a sustainable jobs training centre, sustainable jobs stream under the UTIP—union training and innovation program—and the sustainable jobs secretariat. These are really trying to target as many as 35,000 workers with investments of over $250 million, in terms of where the sectors are heading—including the energy sector, which you represent.

Can you give your views on these measures in the FES and how effective you believe they will be?

Thanks.

Mr. Mark A. Scholz: This is obviously new information for us, and we're starting to sift through some of the details.

I would just say look, there are so many new technologies that are going to be coming out within our sector. We're talking about hydrogen fuel cells to run our drilling rigs, high-line electrification, and battery technology that we're going to be running rigs on.

I would just say that we have to be able to have an understanding of the key skill sets and competencies that are going to be needed within our energy services sector to allow us to be successful over time.

Mr. Arif Virani: Very quickly, to Mr. Bradley, you mentioned nuclear a couple of times. You know the FES talks about the investment tax credit and the clean-tech credit that applies to small modular reactors. There's some language there about large nuclear being studied.

Given what you mentioned about CANDU and the ecosystem that was built up, where do you feel large nuclear and CANDU have a role to play in terms of cleaning the grid going forward?

Mr. Francis Bradley: Thank you for the question.

I think every technology that will be able to produce electricity without carbon emissions will be required. If you simply do the math on triple the electricity required by 2050, we can't turn our back on any good technology. Whether it's small modular or large nuclear, whether it's small hydro or large hydro, or whether it's wind or solar, every technology that is non-emitting will be required. Otherwise, we just will not have enough kilowatt hours to be able to decarbonize the economy by 2050.

Mr. Arif Virani: Thank you.

The Chair: Thank you very much.

Mr. Savard-Tremblay, you have two and a half minutes.

[*Translation*]

Mr. Simon-Pierre Savard-Tremblay: Thank you, Madam Chair.

Earlier, I think Mr. Scholz had to cut short his answer to a question from our colleague, Mr. Martel. I would like to give him the opportunity to finish his answer, if possible, because he was heading in a rather interesting direction.

[*English*]

The Chair: Mr. Scholz, you have a little bit of additional time to go back to Mr. Martel's question.

[*Translation*]

Mr. Simon-Pierre Savard-Tremblay: It was about critical minerals.

[*English*]

Mr. Mark A. Scholz: Sure.

I would say that if you want to have a successful supply chain build-out, particularly when it comes to lithium, you need to have energy service contractors who will be at the front lines of extracting that. We're starting to see some incredible numbers of exploratory wells being drilled, particularly in Saskatchewan, through brine extraction. To get lithium, you have two options. One, you can drill for it and extract it through brine or solvents, or you can mine for it. One thing that I think will be really clear is that when you look at the environmental impact of extraction through brine versus mining, I think most Canadians would choose drilling.

Our members will be at the forefront of that. It will be a pivot, a shift, but it will be over time. We will be allowing our workforce to use similar technologies and competencies that we have today in the traditional hydrocarbon extraction sector to be able to be deployed in these new budding sources of battery technology materials.

It's really exciting, but the reality, I would just point out, is that this sector is still getting through a very difficult period of time. We don't have the capital necessary to put into the types of decarbonization the efforts that we'd like. We will over time, but to meet a 2030 target, it means collaboration with governments. That's why I think access to things like the clean technology investment tax credit for the purposes of our industry is so critical for us to be able to decarbonize while at the same time position our sector to be able to grow these really critical mineral supply chains.

● (1240)

The Chair: Thank you very much.

Mr. Cannings, you have two and a half minutes.

Mr. Richard Cannings: Thank you.

I was going to ask Mr. Scholz about the training aspect and labour, but I think he answered that in the previous round.

I will ask the same question of you, Mr. Wilson, in the renewable energy sphere. What are the training needs? Is the federal government doing enough to help move those along in all aspects of your sector?

Mr. Evan Wilson: Thank you for that question.

We were very pleased to see the announcement of the workforce commitments in the fall economic statement. The workforce is one of the strategic priorities for our organization in supporting the training, recruitment and retention of the workforce for all the work that will be required to deploy wind and solar across the country.

We are eager to see more details on the announcements as they come out, but we were pleased that the fall economic statement did recognize the need to have a trained and available workforce to deploy 10 times the amount of wind and solar that we have currently. Certainly, we're looking forward to seeing more details about those programs and getting engaged on those programs. We want to see how they all roll out.

Mr. Richard Cannings: I'll ask Mr. Bradley to comment as well on the training tha twe need to make this transition to full electrification.

Are we on track for that?

Mr. Francis Bradley: It's a good question.

Are we on track? No. Are we heading in the right direction? Yes.

We have an organization in Canada called Electricity Human Resources Canada that both the Canadian Renewable Energy Association and Electricity Canada partner with through the Electricity Alliance Canada. They've been the central point of discussion and research on what is going to be required for the workforce of the future.

It is going to be challenging. I keep talking about double to triple the electricity and how it is also going to require significantly more people and different skill sets. Within the sector we're getting a better handle on exactly what those different skill sets are going to be and what the requirements are going to be to bring people forward.

There is a very active organization, Electricity Human Resources Canada, that is working on these issues.

The Chair: Thank you very much, Mr. Cannings and Mr. Bradley.

I want to thank the witnesses for sharing their great knowledge. It was a very informative meeting, as they tend to be.

Thank you all very much.

I will suspend the meeting for a few minutes while we go in camera for our committee business.

[*Proceedings continue in camera*]