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Chair: Mr. John Aldag



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• (1605)

[English]

The Chair (Mr. John Aldag (Cloverdale—Langley City, Lib.)): I call the meeting to order.

Good afternoon, everyone. My apologies for the late start today. We had a vote. I appreciate the witnesses standing by.

I'll go through some of the required preamble items. Then we will get right into the meeting as quickly as possible.

Welcome to meeting eight of the House of Commons Standing Committee on Natural Resources. Pursuant to Standing 108(2), the committee is continuing its study of the greenhouse gas emissions cap for the oil and gas sector. Today is the fourth of eight meetings with witnesses for the study.

Today's meeting is taking place in a hybrid format, pursuant to the House order of November 25, 2021. Members are attending in the room or remotely using the Zoom application. They can attend either way. Please note that the webcast will always show the person speaking rather than the entire committee. I would like to remind all participants that screenshots or taking photos of your screen is not permitted. Today's proceedings will be televised and made available via the House of Commons website.

On health and safety, I think everyone has heard the requirements. If you have any questions, come and see me during opening statements. We will move right through that part.

For the witnesses and members, there are a few rules to follow. Interpretation services are available for those joining us online. You have the choice at the bottom of your screen of using floor, English or French. Members and witnesses may speak in the official language of their choice. For those in the room, raise your hand. We will try to keep track of it online. If you have something to say, raise your hand using the Zoom function.

Wait until I recognize you by name before speaking. On Zoom, please unmute your mike yourself. Within the room, the team here will look after you. When you're not speaking, your mike should be on mute. All comments by members and witnesses should be addressed through the chair.

Today for our study of the greenhouse gas emissions cap for the oil and gas sector we have a few witnesses.

As individuals, we have Angela Carter, an associate professor at the University of Waterloo, and Bruno Detuncq, a retired professor from École Polytechnique de Montréal.

From the Alberta Federation of Labour, we have Gil McGowan, president.

From First Nations Major Projects Coalition, we have Chief Sharleen Gale, chair of the board of directors. I believe Sharleen needs to leave at 5 o'clock today. Mark Podlasly, the director of economic policy, is able to be here for the duration of the meeting.

Regrettably, for our next witness, Dale Swampy from the National Coalition of Chiefs, we were not able to get his technology at his home working today. We tried several times. We are working to find an alternate location for him to participate in the future. We will do our best to have him at a future panel.

From Student Energy, we have Meredith Adler, executive director.

Although we have a late start, we have lost one of our witnesses, and another needs to leave at 5 o'clock. My hope is to see if we can get through as many of the questions as possible, if we're nice and tight with our time, to end at 5:30 p.m. I'm happy to revisit that when we're at the 5:30 p.m. time slot. Otherwise, I'm ready to get right into it.

Mr. Morrice, welcome. You have been a reliable participant here. It's good to see you again.

Witnesses, we will be using a card system. A yellow card means you have 30 seconds left and a red card means your time is up. When you can't see the card anymore, please wrap up your thoughts and stop talking. We have lots to cover today and lots of discussions.

With that, let's go first of all to Ms. Carter.

I will give you five minutes.

Dr. Angela Carter (Associate Professor, University of Waterloo, As an Individual): Thank you, Mr. Chair and members of the committee, for the invitation.

I'm speaking with you from the province of Newfoundland and Labrador. I am on the island of Newfoundland, which is the unceded traditional territory of the Beothuk and the Mi'kmaq people.

My province has become heavily economically dependent on oil production over the last 20 years. This was after tremendous upheaval from the collapse of the cod fishery. Today, as you know, we face great economic distress.

I want to give you a sense of my perspective before we get in, because I think perspectives matter for the information that's coming forward.

I'm from a working-class family. All the men in my immediate family have worked directly in oil as tradespeople in Alberta and Newfoundland and Labrador. Today I am a university researcher. That means I have the privilege of choosing my research areas freely and independently. I'm not paid to deliver a particular message, but rather to conduct research based on evidence.

Regarding the Prime Minister's promise to cap oil and gas emissions today and ensure that they decrease tomorrow to reach that net zero by 2050, I have two points to make.

The first is on structuring that cap and cut. This is urgently important. As the Intergovernmental Panel on Climate Change signalled this summer, the intensifying climate crisis is a "code red for humanity". Humans' emissions are causing all of the things we've grown to find really distressing, like heat waves, droughts, wildfires, floods, extreme storms and so on. This is just a pre-show because emissions and temperature continue to rise.

The key point is that the vast majority of emissions causing the climate crisis are from oil, gas and coal. In fact, that sector was responsible for 86% of global emissions over the last decade.

That climate and fossil fuel problem is really clear in Canada. As you've heard, the oil and gas sector is the largest and fastest-growing source of emissions in the country. It is outpacing ambitious efforts to reduce emissions in other sectors. It's the primary reason why we haven't hit one of our climate targets in 30 years.

The cap is one way to ensure the oil and gas sector does its part, but to be effective and credible it has to start soon—by 2023. We need to cap emissions at 2019 levels and then ratchet them down every year, ideally faster in the first years in order to front-load.

At a minimum, to meet the federal government's targets of a 45% reduction from 2005 levels, that signals about an 88 megatonne cap by 2030. More should be expected of the oil and gas sector, given the sector's out-sized contribution to emissions and also given that Canada is expected to strengthen its climate commitments over time.

The Climate Action Network Canada's analysis gives us a much lower cap of about 64 megatonnes by 2030. This cap has to be a hard cap and not based on the emissions-intensity, but on absolute emissions. It has to cover all of them, from fugitive emissions, production, upgrading, refining to orphaned wells—the whole cycle—with enforcement that's significant enough to deter non-compliance and without financial support or subsidies.

Importantly, and I look forward to hearing what Mr. McGowan has to say about this, it has to be integrated within just transition policies to ensure that oil-dependent workers and communities, particularly indigenous communities, don't experience hardship because of the cap.

My second point is about an extension of the cap. It's about skating to where that climate policy puck is going. More is needed than a cap on emissions because it doesn't address the elephant in the room, which is production. The global community has a carbon budget to keep within that 1.5° warming limit. That translates into fossil fuel production limits.

By updated analysis, to have just a 50% chance of keeping warming to 1.5°, global oil and gas production has to decline 4% a year every year until 2050. Based on the International Energy Agency's "Net Zero by 2050" report, which just came out recently, this means there can be no further exploration nor expansion of production of fossil fuels.

This reality is reshaping global climate policy. We're seeing this now in rising national bans on fossil fuel extraction, the fossil fuel non-proliferation treaty and the Beyond Oil and Gas Alliance, of which Quebec is a joining signatory.

Yet the Canada Energy Regulator is anticipating increasing production. Canada is going in the wrong direction at full speed. This is a climate problem, but it's also a missed opportunity for workers and communities who would gain from a low-carbon transition or be put at risk by not implementing that transition.

I look forward to the chance to really dig into this with you folks further over the next hour and a half.

Thank you again.

● (1610)

The Chair: That was excellent time. It was just under the five-minute mark. I really appreciate that.

I should have mentioned for our witnesses that because we have simultaneous translation going on, try not to go too quickly through it. The speed of the comments we just heard was very appropriate and good.

Also, when we get into the interactions, if we are talking over each other, which sometimes happens, the interpreters obviously can't interpret both conversations. We usually give the benefit of the doubt to the members who are pursuing their lines of questioning. If you've been talking as a witness and then one of the members steps in, we would just encourage you to kind of stop, so that the member can then redirect the conversation. They're not trying to be rude. I'm getting to know this crew; it's a very congenial group. It just makes the job easier for the witnesses.

We're going now to Mr. Detunq for five minutes.

[*Translation*]

Mr. Bruno Detunq (Retired Professor, École Polytechnique de Montréal, As an Individual): Thank you, Mr. Chair.

Ladies and gentlemen, thank you for the invitation to have a dialogue between citizens and elected officials on a critical issue for the future.

I am going to start with two highlights.

First, if the largest sector in terms of greenhouse gas, or GHG, emissions does not do its part, it will be impossible to reach the carbon neutrality target.

Second, renewable energy pathways, energy efficiency in all sectors and energy sobriety are the way forward for a sustainable future.

I will now paint you a picture of the global situation. Since 1990, climate change has accelerated, GHG emissions have not stopped growing and the concentration of atmospheric CO₂ has risen from 350 ppm in 1990 to 420 ppm today. This increase is largely due to the use of fossil fuels.

Planet Earth has biophysical limits that are essential to know and respect. A global and long-term vision is necessary. Many people use the International Energy Agency, or IEA, report from last year as a reference to argue that certain scenarios would allow for the production of even more hydrocarbons, but it should be noted that the IEA is not a climate specialist, and on the other hand, choosing a scenario that suits short-term economic interests is like looking at the sky with a microscope.

A serious analysis must be based on the Intergovernmental Panel on Climate Change, or IPCC, 2019 interim report and on the first part of the IPCC's sixth report published last August. Here I remind you of three key findings: Human influence is the primary cause of climate warming; the current trajectory of emissions is leading us towards a probable temperature increase of about 2.6 degrees Celsius; and reducing GHG emissions is a critical imperative.

With respect to the situation in Canada, GHG emissions in 2019 were 730 megatons of CO₂ equivalent, an increase of over 21% since 1990. In 2019, the oil and gas sector emitted 191 megatons, or 26% of total emissions. It is the largest emissions sector in the country. The increase in GHG emissions from this sector between 1990 and 2019 was around 87%. According to the report entitled "Canada's 2021 Nationally Determined Contribution Under the Paris Agreement", the country must reduce its emissions by 40% to 45% below the 2005 level by 2030.

In the Canada Energy Regulators report published last year, it says on page 12 that crude oil production will peak "at 5.8 million barrels per day (MMb/d) in 2032... After 2032, production declines steadily, reaching 4.8 MMb/d in 2050." It is a similar path for natural gas production. However, the report states on page 4 that "while this implies a significant reduction in GHG emissions by 2050, achieving net-zero will likely require more change than is included in this scenario."

Canada's oil and gas production exports penalize all of humanity. Responsibility is not a matter of geography, but of behaviour. It is therefore essential to quickly cap hydrocarbon production and to impose a planned decrease so that all actors can agree on a scenario that is consistent with climate realities. In this way, indigenous communities, workers, companies and the various levels of government will be able to adjust to an inevitable evolution. There are only 28 years left before 2050.

An important criterion to consider for any energy project development is the evaluation of the energy return on investment (EROI). Producing hydrogen from natural gas or oil sands and sequestering CO₂ underground is an energy aberration. It is also an economic one. The primary goal is to continue to extract hydrocarbons. Burying CO₂ is a false solution similar to burying nuclear waste. It sees the subsoil as a garbage can that future generations will have to deal with.

Thank you for your attention.

● (1615)

[*English*]

The Chair: Thank you for those opening comments.

Mr. McGowan, we'll now go to you for your five minutes. The floor is yours.

Mr. Gil McGowan (President, Alberta Federation of Labour): Thanks, Mr. Chair, and members of the committee.

You've asked me to weigh in on the subject of an emissions cap for Canada's oil and gas sector. I'm not here to dissuade anyone from acting on this commitment, but rather to urge you to proceed carefully to make sure you consult with workers in the sector and to communicate clearly with those workers throughout the process.

Some may find it surprising that a labour leader from Alberta is not automatically opposed to an emissions cap on oil and gas. You shouldn't be, and I say that for two reasons. First, Alberta workers, including the majority of workers in the oil and gas sector, accept both the science of climate change and the need for policies to reduce emissions. Climate change is real, it's serious, and Canada needs to do its part.

Second, we here in Alberta, have experience with emissions caps and that experience tells us that they can actually be helpful to the oil and gas industry. This may seem a little counterintuitive, so let me elaborate. In 2015, when the previous Alberta government introduced its climate leadership plan, it included a 100 megatonne cap on emissions from the oil sands. Lots of people know about this, but what you may not know is that Canada's major oil sands producers actually asked for the cap. It wasn't in the original plan. Companies like Suncor, Cenovus and CNRL asked for it to be added.

Why would they do such a thing? They could see the writing on the wall. Even at that time, eight years ago, global investors were starting to feel leery about fossil fuels. Canadian oil sands companies were worried about becoming global investment pariahs, so they embraced the policies contained in the climate leadership plan, including carbon pricing, output-based allocations and the emissions cap, as a way to show investors that Canada was taking climate change seriously. And it worked. The cap and other policies produced concrete incentives for companies to reduce their per barrel emissions. In turn, this gave investors more confidence and now the industry has made a commitment to be net zero by 2050.

Emissions caps and other related policies are not some sinister plot to shut down Canada's oil and gas industry. Done well and carefully, they are simply reasonable, even necessary, policies to help the industry adapt to changing circumstances. But to be honest, from the perspective of Alberta workers, an emissions cap is not the biggest issue facing our province's oil and gas sector. It's not even close. The biggest issue is the unfolding global energy transition itself.

Contrary to the spin coming from certain politicians and pundits—

• (1620)

The Chair: I'm sorry, Mr. McGowan. I'm going to jump in for a second.

Your audio is cutting out a little bit. I wonder if you could just shut off your video for now, just to save some bandwidth, and see if that helps stabilize the audio feed for us.

Sorry to interrupt you, there, mid-sentence.

Mr. Gil McGowan: Okay, I'll do that.

Ms. Julie Dabrusin (Toronto—Danforth, Lib.): I was just going to ask if he could pick up from "not".

The Chair: Yes, perhaps you could go back maybe a sentence.

Ms. Julie Dabrusin: There was "not" and I missed what came after "not."

The Chair: Perhaps you could go back maybe a sentence or two from where I cut you off. I've stopped the clock so you still have the time we've lost here.

Mr. Gil McGowan: Okay, thanks very much.

The Chair: Are you ready to go?

Mr. Gil McGowan: I am.

The Chair: Please proceed.

Mr. Gil McGowan: But to be honest, from the perspective of Alberta workers, an emissions cap is not the biggest issue facing our province's oil and gas sector, not even close. The biggest issue is the unfolding global energy transition itself.

Contrary to the spin coming from certain politicians and pundits, the energy transition is real, it's happening whether we like it or not, and it is not being driven by policies from Canadian governments. Instead, it's a global phenomenon that is largely outside of our control. We could ignore or deny it, and end up with regional economies that look like the American Midwest rust belt after ill-advised trade deals sent hundreds of thousands of good manufacturing jobs overseas, or we could acknowledge that the transition is real and put plans in place to support affected workers through it and pivot towards the economic opportunities that the transition creates.

As the leader of Alberta's largest worker advocacy group, I firmly believe that adaptation and planning are better than denial and delay. Having said that, I don't want to suggest that navigating the energy transition will be easy. There are 140,000 Alberta workers directly employed in oil and gas, and another 50,000 workers work in oil sands related construction. The value that these workers create represents more than 25% of our provincial GDP. It also sustains countless Alberta families and communities.

However, change is coming and it's coming fast. Oil and gas employment in Alberta is already down by 42,000 jobs from its peak in 2013. Despite record prices and record profits over the past six months, employment in the sector is not increasing. This is the future. If you really want to help Alberta workers, I urge you to stop trying to score political points and instead start talking about an ambitious industrial policy for the provinces affected by the energy transition on the scale of the mobilization for WWII, the postwar Marshall plan or the American moonshot in the 1960s. If that's not this government's priority, then it will be hard for me to get behind any of your plans, including the proposal for an emissions cap.

Thank you.

• (1625)

The Chair: Thank you.

Again, my apologies for having to interrupt you, but we got the last bit, so that was excellent.

Now we're going to go to Chief Gale and Mark Podlasly from First Nations Major Projects Coalition.

If you're ready go, the floor is yours for five minutes.

Chief Sharleen Gale (Chair of the Board of Directors, First Nations Major Projects Coalition): My name is Chief Sharleen Gale. I'm chief of the Fort Nelson First Nation, and I'm also the chair of the board of directors for the First Nations Major Projects Coalition.

I am here in my role as the chair of the First Nations Major Projects Coalition. I'm with Mark Podlasly, who is from the Nlaka'pamux First Nation, also known as Cook's Ferry. He is the coalition's director of economic policy and initiatives.

It is important that I recognize I am speaking to you from my home in Fort Nelson First Nation, which is part of the Treaty 8 territory.

I'd like to begin by expressing the First Nations Major Projects Coalition's support for the Government of Canada's commitment to achieve net-zero emissions by 2050. For our members in B.C., we have had a record year for climate catastrophes that stem from decades of inaction on climate change in Canada and around the world. Examples of climate catastrophes that many Canadians have heard about are in B.C. The first nations along Highway 8 had access to their communities destroyed by floods that were also down most of the B.C.'s highway arteries. Last year's wildfire season destroyed the entire town of Lytton, and an overall catastrophic wildfire season for the whole province followed an unprecedented heat dome in North America.

First nations are on the front lines of climate change. Diminished habitat availability, species extinction, poor air quality, infrastructure loss and extreme weather events are all having a direct impact on first nation communities. They have serious financial, health, economical and emotional impacts on our communities, and the first nations have been sounding the alarms for decades.

We need to ensure that the measures put in place to achieve the Government of Canada's target of net-zero emissions by 2050 do not disadvantage first nation communities, further increasing the hardship to indigenous communities. In any policy, including the GHG cap, hardship should not fall disproportionately upon first nation communities, including those indigenous communities invested in oil and gas. While multinational corporations can better absorb the transition costs required to meet these caps, first nations, typically, cannot.

We recommend that you build indigenous opportunities into Canada's GHG cap, in particular, clean energy opportunities with indigenous equity ownership of new projects and financing government collateralization of investments. We emphasize that this degree of indigenous involvement in investments in both clean energy projects and the oil and gas sector bring value not only to first nations, but also to the Canadian economy in the form of investor certainty.

The Tu Deh-Kah geothermal clean energy project in my own community, Fort Nelson First Nation, is an excellent example of the clean energy investment that has enabled transitioning away from fossil fuel-driven electrical generation, indigenous equity ownership, local indigenous jobs for those previously in the oil and gas sector, indigenous board management-level decision-making and repurposing an old oil and gas well site to develop this geother-

mal project. All five of these aspects should be the centre of a Canadian net-zero policy, including the GHG cap.

We should all remember that the Canadian Net-Zero Emissions Accountability Act requires a recognition-of-rights approach, implementation in accordance with the Declaration on the Rights of Indigenous Peoples as well as consideration of indigenous knowledge when setting greenhouse gas emission targets. We recommend that the same approach be taken with your committee's study of the establishment of a cap on oil and gas sector emissions. It should include similar requirements.

Finally, we emphasize the value of capacity development to support first nations to participate effectively in the transition to clean energy opportunities as part of the development of an emissions cap. For examples of what this may look like, I would welcome your committee members and others to attend the upcoming First Nations Major Projects Coalition conference, Toward Net Zero by 2050, in Vancouver, April 25 and 26. This is an online and in-person hybrid event that will feature provincial and federal ministers, senators and corporate sector and indigenous sector thought leaders to discuss the most cutting-edge aspects of indigenous ownership and net-zero projects.

Mahsi cho, hai hai. Thank you.

• (1630)

The Chair: Thank you for your opening comments.

Last for opening statements will be Ms. Adler.

You have five minutes.

Ms. Meredith Adler (Executive Director, Student Energy): Thank you for inviting me to be here today. I am honoured to be joining you from the unceded territory of the Squamish people in British Columbia.

Student Energy was founded in Calgary, Alberta, in 2009 precisely because young people in Canada wanted to determine how they could be part of creating a sustainable energy system that no longer contributed to climate change or the inequities we see around the world.

[*Translation*]

Mr. Mario Simard (Jonquière, BQ): I'm sorry to interrupt, Ms. Adler.

We no longer have any interpretation, Mr. Chair.

[*English*]

The Chair: Just one second, Ms. Adler. We'll make sure you have—

[*Translation*]

Mr. Mario Simard: The interpreter told me that her mike went off, but she is now able to start interpreting again. So, the problem is fixed.

[*English*]

The Chair: If you could start from the beginning, that would be appreciated. I'll reset the clock. Apparently the interpreter's microphone was off.

Ms. Meredith Adler: Okay, great.

Thank you for inviting me to be here today. I'm honoured to be joining you from the unceded territory of the Squamish people in British Columbia.

Student Energy was founded in Calgary, Alberta, in 2009, precisely because young people in Canada wanted to determine how they could be part of creating a sustainable energy system that no longer contributed to climate change or inequities we see in the world. Our founders were not alone, and today we represent over 50,000 youth in 120 countries. In Canada we have 10 chapters, 30 fellows and a membership of thousands in every province and territory. We're also pleased to be the host organization of the SevenGen council, a group of indigenous youth from first nations, Métis and Inuit communities across Canada that are working to empower their peers to lead in our energy future.

I firmly believe that the greatest stakeholders in the actions Canada takes to curb its emissions are young Canadians. In 2050, my peers and I will still be working full-time jobs, raising children and shaping Canada's economy. For us, a strong cap on oil and gas emissions is essential. If Canada does not act, it is our immediate future that is at stake. We will be left with the economic burdens of climate change and the stranded assets that do not serve us or our communities in the economy of the future.

Overwhelmingly, young Canadians want their country and political leaders like you to take swift action to decarbonize. In 2021, Student Energy conducted our Global Youth Energy Outlook, a "first of its kind" research report that surveyed over 42,000 young people across 123 countries to assemble a robust data set on what young people want from the future of their energy system. The results were overwhelming. Over 80% of young people globally want their country to have a decarbonization target, and 92% of them want to see their country achieve net zero by 2050 or earlier.

Young people are willing to work to make this a reality, with the vast majority seeking careers in sustainable energy, and 82% stating that they would vote for a political candidate based on sustainable energy policy.

In Canada there are often questions about if, as a smaller country, we should act. This data shows us that the answer is a clear yes. Canada has the opportunity to lead, and we can see clearly that this cohesive voice of the next generation will reward this leadership at a global level.

Within our research we did also pay special attention to Canada through surveying young people ages 18 to 30 and hosting regional dialogues on the transition for heavy industry, the innovation landscape and energy access in remote and indigenous communities.

Canadian young people show even stronger support for the energy transition, 82% of whom are advocating for decarbonization and 97% of them want Canada to reach a zero-carbon energy system by 2050.

Young Canadians have identified the lack of political willpower and not having appropriate policies and regulations in place as the biggest barrier to achieving this energy future. A strong cap on greenhouse gas emissions for the oil and gas sector is the first step to demonstrating this type of political leadership that Canada's future voters, workers and consumers require.

A cap on emissions creates clarity for industry, workers and impacted communities. Without that transparent and clear plan it will be hard for everyone to have certainty about their future. We already see that young people are turning away from careers in oil and gas, with enrolment in petroleum engineering at the University of Calgary being so low that the university had to suspend the program. High numbers of people currently in the industry are reporting that they are actively looking to pivot careers to other sectors.

Canadians are smart. They know that climate change will be and already is impacting them in their careers. At the same time, the skills and knowledge within Canada's existing oil and gas industry can provide us with great advantages that we can leverage to build a cohesive energy transition together.

From a training perspective, there is a huge opportunity to be innovative and support young people to develop careers that are aligned with a zero-carbon energy system. Canada is primed to foster the next generation of entrepreneurs who will be required to lead this energy future. We can work together to prepare our young people for these incredible opportunities, but it is up to you to provide the political certainty required to enable that investment in our talent and potential.

Young people want their country and leaders to make decisions based on strong values that centre equity, indigenous rights and opportunities for future generations to thrive. A just transition needs to be a priority for all Canadians, and it has to start with strong political leadership. This policy cannot have loopholes. Rather, it must show that you, our political leaders, believe in Canada's ingenuity and the potential of our people, our country and our next generation to rise to meet this opportunity to be a global leader together.

Thank you for having me here today and for working to include young people on these crucial matters that will shape our future.

• (1635)

The Chair: Excellent. Thank you for your opening comments and to each of the witnesses for your statements.

In the first round of questions, we'll have one representative from each party who will have six minutes.

First up we have Mr. Melillo.

It's over to you for your six minutes.

Mr. Eric Melillo (Kenora, CPC): Thank you very much, Mr. Chair.

I'd like to thank all of the witnesses for joining us today to talk about this important issue.

I'd like to start with Chief Gale. I know you're a bit pressed for time, so I hope we can get some comments from you before you go.

I appreciated your opening remarks. Could you provide a bit more information specifically on the Coastal GasLink project? I know your organization has supported a partnership of 12 first nations in their efforts to purchase equity in the project.

Could you share some information on how valuable that is for first nations?

Chief Sharleen Gale: I think it would probably be best to refer the first question to Mark Podlasly, who's worked directly with our communities.

Mr. Mark Podlasly (Director, Economic Policy and Initiatives, First Nations Major Projects Coalition): Thank you for the question and thank you, Chief Gale.

I'm going to speak generally about pipelines and indigenous participation, especially on equity.

The reference you made is to the 12 first nations looking at the Coastal GasLink. There's another proposal in British Columbia. It's the Pacific trails pipeline, which has 16 first nations also looking to take equity. For the record here, I am the chair of that 16 first nations commercial partnership. Right now, that is with Enbridge and is eventually going to service the Kitimat LNG plant on the coast.

First nations look to take equity positions in these projects because it gives us, first of all, a say in how the projects are being built, where they're being operated and where they will be routed.

Also, it's for a revenue stream. Many first nations in the country, particularly those of us who are in remote areas or places where we don't have easy access to urban facilities or urban employment options require a revenue stream to fund self-determination priorities. There is never enough money from Ottawa to fund things like language rehabilitation or sometimes health care issues. There's certainly not enough money at times to fund the priorities that are outlined in the United Nations Declaration on the Rights of Indigenous Peoples as things stand now.

I ask for clarity in your question. Is the question about whether first nations want equity in pipelines or is it that they're looking to secure something else?

Mr. Eric Melillo: I was curious to get some thoughts on the benefits of the projects specifically, but I'm going to actually shift to a different topic now, because I do have limited time.

I would like to go back to Chief Gale.

Chief, I come from Kenora, which is a region in northwestern Ontario that encompasses Treaty 3, Treaty 5 and Treaty 9. Although there's definitely not a lot of oil and gas in my region, I think a lot of the chiefs and a lot of the people in my region are interested in how this process plays out, especially from the consultation perspective, considering that the government is moving to align itself with the United Nations Declaration on the Rights of Indigenous Peoples.

I'm wondering, plainly, if you believe that the government should require the consent of indigenous communities across the country before moving forward with a proposed emissions cap.

Chief Sharleen Gale: I definitely believe that they should be. Indigenous people have been here for thousands of years and we have been left behind for decades.

As we change policy, it's really important that we're heavily involved in making those decisions because they impact our territories.

As we move into the future, we know that with the renewable energy market, you're going to need to have more access to the mining material as you transition to lithium batteries and all those things. Those resources are on the traditional lands of our territories, so we do need to be involved in any decisions, policy change and discussions moving forward.

Yes, you do need us involved.

• (1640)

Mr. Eric Melillo: Thank you. I appreciate that.

This last question will probably take me to the end of my time. I'll come back to you again, Chief Gale.

There are often different interpretations, I suppose, of what consultation means and what it looks like. Do you have any thoughts for our committee on how we should propose to do that in the best way and ensure that it's as inclusive as possible?

Chief Sharleen Gale: Yes, I also believe that when people are coming to invest in our territories, true partnership is partnership with the indigenous communities that are affected. I think the truest form of consent is showing that you want to work with our communities.

I want to open up the floor to Mark, if he has a comment on that.

Mr. Mark Podlasly: We will need consultation and consent to be granted. Consent is required under UNDRIP legislation, so first nations will have to give that consent. Chief Gale is right. Those resources for net-zero futures are on our territories and on our reserves.

Mr. Eric Melillo: I do have a bit more time.

I'll go back to you, Mr. Podlasly. I appreciate your comments on the fact that the consent is needed. Do you have more specific suggestions or recommendations for us on how the government will best move forward on gaining that consent?

Mr. Mark Podlasly: The purest form of consent is an equity ownership in a project. It makes the first nations a proponent of the project. That is the purest form of consent.

As for recommendations, you have to make capital available to first nations at a reasonable cost, because that's the biggest barrier for first nations that want to be part of major projects.

Mr. Eric Melillo: Thank you.

The Chair: Thank you. You're right on the six-minute mark.

We're going to Ms. Jones.

You have six minutes.

Ms. Yvonne Jones (Labrador, Lib.): Thank you very much, Mr. Chair.

Thank you to all the witnesses. I think it was great testimony today, and I wish we had more time to ask questions.

I'm going to try to get in at least three questions.

I'm going to start with you, Ms. Carter.

I'm a member of Parliament in Newfoundland and Labrador. I'm coming to you today from Labrador, the unceded lands of the Innu and the Inuit of Labrador.

I come from an oil-producing province that has had a tremendous dependency on this. You talked about your own family and the workers. Obviously, what we're proposing and what we need to do to protect the planet is going to be heavy lifting by everyone, and it's going to require all of us making significant changes, no doubt.

With your knowledge of the industry, the dependency on the industry and your knowledge of where we need to go with climate change, how should the Government of Canada be working together with large oil and gas industries to not just reduce the emissions and to look at a cap, but also to help transition the workers, the families, the communities that have become dependent? How do you see our walking that line and being able to accomplish that goal? What needs to happen?

Dr. Angela Carter: That is a great question, and I'm really happy to get it from you, Ms. Jones. It's our first interaction, and it's nice to be able to have it in this form, on this important issue.

What you're pointing out is the importance of a just transition for the people who live in Newfoundland and Labrador, and I'm sure that Mr. McGowan has a lot to add on this as well. What that means is we need governments working in collaboration with the labour movement, with workers, with unions and affected communities to

create a plan for how we're going to move from being now very oil dependent to being able to seize the benefits of a clean energy economy.

I think one thing right off the top that I would say is that we've seen, especially in the last year or so in Newfoundland and Labrador, huge sums of funds, \$320 million that came from the federal government, that was intended to support workers and to put us on a track for a new energy economy. Instead, that huge subsidy for the most part was given to multinational firms, and they didn't guarantee any jobs from that. That was a huge disappointment. We didn't get any binding agreements that employment would be kept.

We need to make sure that any future funds that are coming from the federal government—and it sounds like there will be if we get just transition legislation in place in Alberta, Saskatchewan and Newfoundland and Labrador—are used to help workers and communities make the transition.

There are plenty of examples of just transition that we can draw on in the OECD: Denmark, Scotland, Spain, France, Germany, Sweden. The EU has plenty of examples for us. We don't need to reinvent the wheel. We can also look closely at some American states, such as Illinois and New York, that are creating green job coalitions with labour, governments and indigenous peoples, or other groups in society that might be hurt by this change.

I see a huge potential for this.

● (1645)

Ms. Yvonne Jones: Thank you. I wish we had more time to ask more questions, but I want to move on to Chief Gale. She made so many great points as well in her testimony.

We know that any change here is going to be a risk for indigenous people. It's going to affect indigenous people in Canada. I live in a riding that is highly industrial. It's on indigenous lands. A lot of this is happening. They are the ones mostly impacted. Whether it's in development or whether it's in a slowing of development, oftentimes they are the most vulnerable people who are caught in the middle of this.

I want to ask you, Chief, if you can tell me today what you view as being some of the key risks that will be facing indigenous communities and indigenous people with this economic transition, and how we can make it easier or how we can be more inclusive. UNDRIP I'm very familiar with. But even within our own indigenous governments—even the one I'm a part of, and I'm sure one you're a part of—we often have differences of opinion. We need to have a good, solid path forward here.

How do you see the Government of Canada working with indigenous people to make sure that transition is done properly and they don't end up bearing some of the greatest risk here?

Chief Sharleen Gale: There's definitely no single solution to achieving the net-zero emissions. There are several parallel paths and technologies that need to be employed. The First Nations Major Projects Coalition doesn't take a position on whether caps should be applied to other sectors, but we often offer the best advice that first nations need to be a part of the process in all sectors.

I think the impact is yet to be seen in terms of how this all works, but I think the overall need is for first nations to be involved in anything that affects our basic recognition of rights in partnerships, and the need for first nations' participation in the economy and to have benefits of the transition to a net-zero economy.

I know that when we move forward on these kinds of decisions, we do it carefully. As a person who's from Fort Nelson First Nation, we always make decisions on the land from our...and the guidance from our elders. There's a lot to consider. Each community is very unique, especially in each province with different regulations and whatnot.

I hope that answers your question.

Ms. Yvonne Jones: It does.

The Chair: Ms. Jones, we're out of time, unfortunately. The six minutes goes quickly.

Ms. Yvonne Jones: Thank you.

The Chair: Monsieur Simard, it's over to you for six minutes.

[*Translation*]

Mr. Mario Simard: Thank you very much, Mr. Chair.

Good afternoon, Mr. Detuncq. I'm glad to be able to put a face to the name I've seen on many articles I have read.

You spoke earlier of the energy return on investment factor. I would like you to explain it to me in more detail. I would especially like you talk about the intention behind the Canadian hydrogen strategy, which is to make no distinction between blue, grey and green hydrogen.

Mr. Bruno Detuncq: Thank you for your question. It's a very intriguing one.

You're right, there are different hydrogen production streams. In Quebec, the most natural stream is hydroelectricity, which turns water into hydrogen and oxygen. This process is called electrolysis.

Hydrogen can also be produced by hydrocarbon fracturing. This is actually the most widely used method in the world. In fact, 95% of hydrogen is produced this way. It involves choosing a hydrocarbon, either natural gas or oil, and putting it into chemical reactors to extract the hydrogen and then obtain CO₂.

What do they do with the CO₂? If the CO₂ gets released into the atmosphere, it's called grey hydrogen. If they try to capture and sequester it underground, it's called blue hydrogen.

The CFA Institute, a U.S. institute for economic and financial analysis research funded by the Rockefeller Foundation, recently released a fascinating report. It very clearly shows that, economically speaking, hydrogen is not profitable, especially with oil as heavy as the oil sands type. It's true, producing oil from oil sands requires a lot of energy. So it's how much energy you put in versus how much you take out. Once you produce the oil, you need to start another phase to separate the oil and extract hydrogen. The CO₂ must also be sequestered. So you lose energy at every stage. These energy losses make for a very low energy return on investment, or EROI. At that point, you have to ask yourself if you really need to do it.

In addition, recent studies show that we currently have very little work being done to ensure that there are no long-term risks to sequestering CO₂ underground. CO₂ is not neutral. When moisture is present, it can bond with water vapour and form weak acid, that is, carbonic acid. In the long run, this acid can affect the caverns or spaces in which it will be sequestered, or the saline aquifers. We have absolutely no information on what will happen in the long run.

The energy return on investment would at least require a complete study of the process. That is currently not being done, and it's very unfortunate.

• (1650)

Mr. Mario Simard: I don't want to put words in your mouth, but that means that the concept of energy return on investment is not taken into consideration in Canadian policy.

Am I right?

Mr. Bruno Detuncq: It isn't at all.

Mr. Mario Simard: That answers my question. You're a great witness because you answer our questions before we ask them.

I'd like to come back to carbon capture strategies.

As you know, there are two major projects under way in Alberta. These projects will cost \$2.5 billion, of which 57% comes from the Alberta government and the federal government. Personally, I have reservations, because I feel that in these situations, the taxpayers are carrying the risk.

Mr. Detuncq, I would like to hear your thoughts on this.

Also, do these carbon capture strategies have a chance of being profitable, both economically and environmentally?

Mr. Bruno Detuncq: I don't want to comment personally on the economic aspect, but I can refer to the economic and financial analysis research institute report that I mentioned earlier. According to that institute's research, they will not be profitable.

Scientifically speaking, there are other criteria, such as the amount of energy needed to do this landfill work and the potential landfill sites.

Currently, very little relevant work has been done in this area. For the past three or four years, I've been scouring scientific literature for information on the subject. I realized that 85% of all the papers produced were done by people funded by oil companies for the purpose of increasing oil production.

Therefore, nothing leads us to believe that burying CO₂ underground carries no risks. The problem is, the risks have not been assessed.

Mr. Mario Simard: You stated in your speech that it was like looking at the sky with a microscope.

I'm going to make another analogy. Am I wrong in saying that the technical knowledge we have about carbon burial is eerily similar to what we knew about cancers caused by tobacco in the early 1970s?

It's hard to come by neutral information about carbon burial.

• (1655)

Mr. Bruno Detuncq: That's exactly right.

Mr. Mario Simard: Thank you.

[English]

The Chair: There was not much time there to answer. I apologize.

Mr. Angus, it's over to you for your six minutes, please.

Mr. Charlie Angus (Timmins—James Bay, NDP): Thank you, Chair.

I'd like to thank all the witnesses. This is a fascinating discussion.

Mr. McGowan, I'd like to start with you. Would it be fair to say that the transition we've been talking about for so long is actually already happening?

Mr. Gil McGowan: It is, without a doubt.

If you took a look at the fossil fuel industry in Alberta as a whole, you'd see that we've already seen the phase-out of coal-fired power, which is something I was intimately involved in as president of the Alberta Federation of Labour. I was also co-chair of something called the Coal Transition Coalition, which was a coalition of unions representing people who worked in the coal-fired power sector, both the plants and the coal mines. Together, we negotiated the first sector-wide just transition package for workers who lost their jobs as a result of that change. That was thousands of jobs already lost.

As I mentioned in my opening remarks, the number of people working in Alberta's oil and gas sector has already dropped from a peak of about 182,000 directly employed in 2013, and we've lost about 42,000 since then, so it's happening already as a result of the move away from fossil fuels. There's a reluctance of big investors to put money into it, and then there's also the question of automation.

Mr. Charlie Angus: Right, and automation is a big issue because we've seen a 17% loss up to 2019. We're expecting more losses, and as companies retool, we're looking to automation.

I want to bring this into focus. I've lived through unjust transitions. I was on one of the last shifts underground in Elliot Lake before we lost 4,000 uranium jobs, and I've never seen a good transition. As I've said, it's U-Hauls leaving in the middle of the night. It's economic disaster usually.

What I find really flummoxing about the situation in the west is that we have such an opportunity to make the investments now to make change. I'm looking at the report from last December from Calgary Economic Development and Global Edmonton. It says

there's a \$61-billion opportunity for Alberta and 171,000 clean-tech jobs. However, that will necessitate major changes, first of all, in what the province is actually investing in, a major increase, and what would it mean at the federal level, so that instead of having the usual heartbreak stories of shutdowns and people having to leave, we're actually starting this transition now? I don't see that federal presence in a big enough way. What do we need to do to make this happen?

Mr. Gil McGowan: I think the first thing we have to do is make a commitment to the concept of just transition, which Ms. Carter has already alluded to.

When people talk about just transition, I think some people have different ideas of what it actually is. Some people talk about just transition as adjustment policies for workers who lose their jobs in the affected industries. Other people talk about just transition in terms of future economic transformation.

I just want to make it clear that from our perspective in the Alberta labour movement, when we talk about just transition, we're talking about both of those things. They're related.

In the near term, we need policies for workers who are facing the loss of their jobs. That means training for younger workers, pension bridging for older workers, relocation allowances. These are the kinds of things that we actually negotiated with the previous Alberta government as part of the just transition package for affected workers in the coal-fired power industry. There are lessons to be learned there.

Then there is the bigger question of economic transformation that can generate economic opportunity for people who are displaced, but also for people who are not even in the industry, just to grow the economy.

For that latter part of just transition, I'll be blunt. We need to put money on the table. If our governments at the provincial and federal levels are serious about dealing with energy transformation and providing just transition for workers and regions, we have to think big, in the order of the Marshall plan, the mobilization for World War II, the Apollo moonshots. That means governments have to put a lot of money on the table.

What I am concerned about is that money will be put on the table, but it might be for the wrong things. The oil industry, for example, has asked for \$75 billion from the federal government for carbon capture and sequestration. I think we should model that and see where the money would be better spent—on helping to sequester carbon or actually building a transition towards a greener economy.

I think Canadians deserve to know that before our governments start signing cheques.

• (1700)

Mr. Charlie Angus: I think that's really important. I want to say that from our perspective in the New Democratic Party, we don't get to a clean energy future without Alberta. We have the potential and we have the skill, but it is going to take a national vision.

We hear about carbon capture and how many billions we're going to keep subsidizing, when we may actually be able to shift that money to much better use, putting more people to work.

How important is it to have the workers at the table in this discussion?

Mr. Gil McGowan: You can't have a just transition without workers and, I would suggest, a dedicated new transfer from the federal government to provinces that are energy provinces, mostly Alberta, but also Saskatchewan and Newfoundland. We're the ones that are going to make the biggest sacrifices in the transition to a greener economy, and the federal government and other Canadians have to support us through that transition.

That's why I have recommended a dedicated just transition transfer in addition to other transfers from the federal government to affected provinces.

Mr. Charlie Angus: I know my time is up, but can you send us notes on anything you have on how you guys see the just transition, so that we can look at it in our study?

Mr. Gil McGowan: Yes, for sure.

The Chair: On that, to any of the witnesses, if you have additional information, we can take up to an additional 10 pages in briefing material, so feel free to send that in to us based on the conversations we have had today.

We are going to our next round, to Ms. Goodridge.

Welcome. I forgot to mention you in my opening comments. You have five minutes.

Mrs. Laila Goodridge (Fort McMurray—Cold Lake, CPC): Thank you so much.

Thank you to all of our panellists for their remarks today.

I am very proud to be the member of Parliament for Fort McMurray—Cold Lake.

Mr. Podlasly, I really want to thank you and Chief Gale for your remarks. In my region of northern Alberta we have seen a lot of economic reconciliation taking place. I am wondering if you've heard at all about the AIOC, the Alberta Indigenous Operations Corporation, and if you have any thoughts on that.

Mr. Mark Podlasly: Yes, and I'll be speaking as Chief Gale had to leave.

The AIOC, Alberta Indigenous Opportunities Corporation, is an organization that makes capital available to indigenous organizations at an effective cost, to become owners and to become more integrated into the energy economics in Alberta.

There is a similar program in Ontario. It's the Ontario aboriginal loan guarantee program. It's the same thing. It allows indigenous people access to competitively priced capital.

Mrs. Laila Goodridge: Do you think that's a good idea?

Mr. Mark Podlasly: Yes, I think it's a fabulous idea, and as an organization we promote that as a national initiative. It would do wonders for getting capital to indigenous people to invest in Canadian infrastructure.

Mrs. Laila Goodridge: Fantastic.

If you were to make a recommendation to this committee when you were talking about economic reconciliation, would having a program similar to the AIOC be something that you would recommend?

Mr. Mark Podlasly: Yes, wholeheartedly.

Mrs. Laila Goodridge: Fantastic.

Are there any other barriers that are preventing access to capital for indigenous ownership in energy projects?

Mr. Mark Podlasly: The access to capital is the number one issue for indigenous people wanting to participate in infrastructure on energy, clean energy and other transportation infrastructure in this country, just because of the way the Indian Act has set up indigenous people in this country. We are subservient to a federal act that was not made for a modern energy transition.

Mrs. Laila Goodridge: I very much want to thank you for the work you're doing. I think it's spectacular. In northeastern Alberta we see what you guys are doing, and we definitely support much of the work that you're doing.

I'll open it up to Ms. Adler.

You touched quite a bit on the idea of having a cap on emissions. I was wondering if you think that we should have a cap on all emissions, using a sector-by-sector approach.

● (1705)

Ms. Meredith Adler: What we see from our research is that young people are really concerned about all pollution. It's not just CO2 but also methane and anything else. We should definitely have a sector-by-sector approach.

Mrs. Laila Goodridge: Do you think, for instance, the cement industry in Quebec should have a sector emissions cap?

Ms. Meredith Adler: I think that all emitting sectors in the heavy industry in Canada need to basically account for their emissions and look towards creating a net-zero economy.

Mrs. Laila Goodridge: Would you prefer to have a global cap or a sector-by-sector cap?

Ms. Meredith Adler: I don't have a strong opinion on that based on our research, but what I do know is that young people are very determined to get to net zero, and I know that many other witnesses at this committee have made recommendations based on their own research there.

Mrs. Laila Goodridge: Fantastic.

To return to Mark Podlasly, what are your thoughts on having a sector-by-sector emissions cap?

Mr. Mark Podlasly: The coalition doesn't take an approach to whether it should be sector by sector. We do know that there are some sectors that emit quite a bit, but we are very focused on ensuring that indigenous people are not harmed in the shift that will happen to those industries as they move towards a carbon-restrained future.

Mrs. Laila Goodridge: Do you think a cap would change economic opportunities for indigenous communities, specifically in northern regions or in energy-producing regions in terms of their economic development?

Mr. Mark Podlasly: Anything that we're approaching for an energy net zero future is going to require adaptive learning for all sectors to figure out what is the opportunity that comes from this.

You're starting to see that in Alberta in places where carbon pipelines are starting to be proposed. You're starting to see alternative energy solutions and sequestration technologies. It's not just one thing; it's many things. From an indigenous perspective, as long as indigenous people are included in the same opportunities as other Canadians have, it's a great thing.

Mrs. Laila Goodridge: Wonderful.

Do you know if there's any legal work that's been done on whether the federal government has the authority to impose an emissions cap on first nations lands?

Mr. Mark Podlasly: We have not done research about that, and it's not something that we have explored extensively.

Mrs. Laila Goodridge: Okay.

Thank you so much.

The Chair: Thank you.

Mr. Chahal, it's over to you now for your five minutes.

Mr. George Chahal (Calgary Skyview, Lib.): Thank you, Chair.

I also want to thank all of the witnesses for their testimony today.

I'm going to start off with Mr. McGowan.

You talked a lot about the importance of the just transition. From your experience, what do you think the role of the federal government should be in this just transition? Also what's the role of the province—in your case and my case, the province of Alberta—and municipalities?

Mr. Gil McGowan: We feel strongly that it needs to be a shared responsibility, especially when we're talking about setting national goals for emissions reduction. If the federal government is introducing legislation that will have an impact on our jobs and our communities in Alberta, then they have a responsibility to help us deal with the fallout.

As an example, when I was the chair of the Coal Transition Coalition and we were in the process of approaching the provincial government at that time for just transition policies, we went out of our way to not only work with the province but also with employers and municipalities, because when it comes to the adjustment needs of workers who might be displaced as a result of policy, you're not just talking about individual workers. You're talking about their families and their communities.

In many cases, the communities that are going to be impacted most are the smallest ones that depend most on these industries. We need the municipalities at the table. We need employers, workers and the federal government. It needs to be a shared responsibility.

Mr. George Chahal: You also talk about a transfer to energy provinces that's dedicated. In Alberta, we've seen the current provincial government give a billion dollars plus to a private corporation.

Do you believe that transfers should be given without a plan in place? What does that industrial policy that you talked about earlier look like? What lessons have you learned from your previous experience with the transition from coal in Alberta that we can learn from? What measures can we put in place in future policy?

Mr. Gil McGowan: Those are great questions.

In terms of a plan, it's imperative. I talked about the distinction between just transition for worker adjustment and just transition for economic transformation. They both need plans. That's especially true if we're talking about transforming the economy to generate economic activity to replace oil.... Because oil and gas is just not going to be the engine for economic activity and job creation that it once was, if we're trying to replace it on a scale like we're talking about in Alberta, we need an industrial strategy to shift.

It's happening fast. You can't rely on the markets to sort it out because, as I said at the outset, I'm afraid that without government direction, and without a plan from the top where government sets the direction in co-operation with workers and employers, you're going to end up with the situation like they have in the American Midwest, where manufacturing collapsed and nothing came in to replace it.

That's what we're trying to avoid in Alberta. So we need a vision and a plan that have to be facilitated at both the provincial and the federal levels, but in order to make this huge shift—and in a province like Alberta it would be a very huge shift—and to do it quickly because this is happening very quickly, we need money too. That's why we're talking about a very significant new stream of funding coming from the federal government in the form of a just transition transfer.

I know there's limited time here, so in terms of lessons, I'll just mention one. There was money coming from the province for just transition in Alberta, but there was a pot of money for employers to keep the lights on in the transition to natural gas from coal, and there was a pot for workers and communities. That pot of money that went to the big power companies was given without any strings attached, and there was a huge missed opportunity to get things to support workers and communities in the transition by basically requiring the employer to help with the transition. If money's going to flow, it needs to be attached to a plan, and there have to be strings attached that will facilitate a successful transition both for workers—

• (1710)

Mr. George Chahal: Do you believe that natural gas has a role to play in the transition as we move forward to a cleaner future?

Mr. Gil McGowan: The short answer is yes. Natural gas is a fossil fuel, but it is less emissions intensive. There is a role to play, for example, in using natural gas as a feedstock for petrochemicals.

That could be part of the transition, but I think the focus should be on what I call “safe bet” transition technology, with things that are already invented, like solar, wind, batteries, EVs and methane reduction. This is proven technology that's low-hanging fruit. If we pile into that instead of more expensive, unproven technologies—even like carbon capture and sequestration—it would be a better use of investment.

The Chair: We need to stop there.

We're now going to Monsieur Simard, who will have two and a half minutes.

[*Translation*]

Mr. Mario Simard: Thank you, Mr. Chair.

I have another question for Mr. Detuncq. Perhaps Ms. Carter could then add her comments.

Mr. Detuncq, I'm going to give you some numbers. I don't know if you are aware, but during the COVID-19 pandemic, the federal government has invested \$30.9 billion just to support the oil and gas sectors. According to Oil Change International, \$14 billion per year goes to these sectors through Export Development Canada. Trying to include all subsidies to fossil fuel sectors, Oil Change International's leaders determined that the amount for 2018 was \$78 billion.

Minister Guilbeault has said that he will end inefficient subsidies to the oil and gas sectors by 2023. My question relates to the concept you mentioned earlier, the energy return on investment.

If we end inefficient subsidies and we need subsidies to be efficient, can carbon capture strategies be considered efficient subsidies?

Would the subsidies the federal government could provide to blue hydrogen-related sectors be considered efficient subsidies?

Mr. Bruno Detuncq: Based on the reading I've done, I would tell you that blue hydrogen isn't something we can bank on. We would have to look at green hydrogen. Western Canada has great potential, for both wind and solar power. Using these renewables, we could produce hydrogen to be used locally in Canada or exported. This would be the most promising avenue.

We mustn't forget that producing hydrogen from methane or oil sands yields a very low energy return on investment. In contrast, producing energy from high-power wind installations currently yields an EROI of 70 to 1. In other words, using one unit of energy yields an energy gain of 70 kilowatts, a much more attractive return. We should be focusing on these streams instead.

• (1715)

Mr. Mario Simard: I'm sorry to interrupt you, Mr. Detuncq, but I'd like Ms. Carter to speak briefly.

[*English*]

Dr. Angela Carter: Thank you very much for that question.

I just wanted to say a couple of things about CCUS because I think this is urgent and it's important.

I was one of the professors and academics who drafted that letter that was signed by 400 scientists and academics and presented to

Minister Freeland in expressing concern about new funds, a new tax break, for CCUS. The reason we wrote that letter and drew attention to it is that we're concerned that CCUS is mostly being used for increased oil production. Eighty per cent of captured carbon is used for enhanced oil recovery, so it's about it being injected into underground oil reserves to boost up that production.

We need to see what the CCUS really is. It's mostly about boosting oil production. It's not about a climate solution. As I think you've all pointed out, these projects are extremely costly for the public, and given where we are in the climate crisis, we need all of those funds now for the transition, for the things that Mr. McGowan is pointing towards: proven cost-effective solutions that we know of right now, such as renewable energy, electrification and energy efficiency. CCUS is a diversion.

[*Translation*]

Mr. Mario Simard: Could you send us—

[*English*]

The Chair: We're a minute over that one.

I'm going to jump to Mr. Angus.

Mr. Angus, I'll give you three and a half minutes because everybody except for the Conservatives went a minute over on this round.

I'll give the minute to Ms. Rempel Garner on hers.

Mr. Angus, it's over to you.

Mr. Charlie Angus: Thank you, Chair. I'm such a shy person, and I'm so glad you're stepping up for my interests here.

Ms. Adler, I am really thrilled that you're here, because when we talk about these issues, we get the industry guys and we get people who have economic interests, but it's your planet. It's your future that we're gambling with. When I talk to my daughter, who is upper gen Z, there is a real anger, because they see that our generation is failing in not just a fundamental way but in a deeply existential way. This is about gambling with your future. It's a generational divide that we've never dealt with before.

I'd like to ask you about this. As year in, year out, government makes promises, and year in, year out, Canada fails in these promises, there has been no decrease at all and we're hurtling past 1.5°C and not even close to meeting it, what is the stress—I want to talk about it at a personal level—that it puts on your generation when you contemplate a future that is being so badly mishandled by our generation?

Ms. Meredith Adler: The stress on our generation is very palpable. I think many people in my age range are severely questioning if they will ever have children, for instance, and if that is a safe or wise decision given our potential climate future. That is something that breaks my heart, but it is a very real thing for us to have to consider. I think that's why we need this level of policy certainty.

Also, that's why young Canadians are really calling for more cohesion. They're not as interested in provincial infighting or other pieces like that. They really want to see a clear policy direction that allows us to actually plan our futures, because at this point, things are very up in the air. A lot of that has to do with what's the trajectory of our economy, but also with what's the trajectory of our climate and wanting to see Canada be a leader on what does it look like to establish a climate-safe future.

Mr. Charlie Angus: Thank you so much for that.

I don't think the natural resources committee has ever discussed having children before. I'm glad you raised it, because as an older white guy, I was reluctant to raise it. I hear all the time from young people who tell me they are not willing to bring children into a world that is in such peril. The years are ticking down, literally, before us, yet we have people who come before our committee and talk about increasing oil production by a million barrels a day. Our national regulator is talking about it. They're promoting it.

How important is it that young people be at the table discussing what their future is going to be, so that we actually bring some common sense to this discussion?

• (1720)

Ms. Meredith Adler: It's crucial that we're leveraging youth engagement, because it is their future. These are also the people who are going to implement all the plans that are made.

I'm happy that I was invited here. I think this is the first time that Student Energy has been invited. There's so much more we can do. It's great to see the establishment of youth councils by many MPs as well as ministers. There is a lot that we can do to more constructively integrate the youth voice, especially the voices of indigenous young people, who are really looking to lean in on this conversation. Many of the things that the First Nations Major Projects Coalition talked about are the types of projects that they want to be leading in their communities as well.

Mr. Charlie Angus: Thank you so much.

The Chair: Great. Thanks.

Now we're going to Ms. Rempel Garner.

You would normally have five minutes, but we got a bit away on the last round. I'll give you six minutes, but if you want to give your last minute to Ms. Goodridge because she didn't get hers, that's your choice.

Hon. Michelle Rempel Garner (Calgary Nose Hill, CPC): It's so complicated, Chair.

The Chair: Yes. I'm trying to be fair here.

Hon. Michelle Rempel Garner: It's an important topic.

I'll address some questions to Mr. McGowan.

Mr. McGowan, at present you're aware that the former Alberta government put in place a cap on emissions of 100 megatonnes. Do you think that this is sufficient and that the framework that was put in place under the former Alberta NDP government should be carried over into federal policy?

Mr. Gil McGowan: It's clear that the framework developed by the previous Alberta government forms the basis of the federal government's climate policy. We see that on carbon pricing, on output-based allocations, and now we're also seeing it with the emissions cap. As I said in my opening remarks, the emissions cap was not just welcomed but advocated for by the industry itself. It has provided incentives for oil companies to reduce per barrel emissions. That's been good for the environment, but it's also been good for them, because they've been able to continue to attract investment.

The reality is that the world is moving away from fossil fuels. It's not a question of if; it's when. That's going to have huge implications for demand. As demand declines, so will investment and employment—

Hon. Michelle Rempel Garner: Thank you.

It's all about time, Mr. McGowan. I appreciate your answer.

I read your March 2019 12-point plan on a just transition. In one of the sections, you talk about reducing “carbon emissions, as much as possible, from each barrel of oil produced in Alberta so, we can continue to access markets with increasingly stringent emission standards.”

I was wondering, with that particular sentiment, is your organization advocating for an absolute cap on emissions, or more for a per barrel approach or decarbonization approach?

Mr. Gil McGowan: These are early days for the federal government. They've made a commitment to an emissions cap and they're starting conversations. We haven't taken a firm position on what we'd like to see from the federal government in terms of the cap, other than to say that we're okay with the idea.

Let's talk. Let's make sure that workers are involved in that conversation. Honestly, if workers aren't consulted, if there's silence about how something important like this might affect them, then the silence will be filled with anxiety and anger, and we already see how dangerous that can be.

Hon. Michelle Rempel Garner: I agree wholeheartedly. We're just trying to drive to recommendations here to inform that output.

Based on your knowledge of the existing emissions cap in Alberta that was put in place by the former NDP government, is there anything you would change?

Mr. Gil McGowan: Interestingly, that cap was never fully implemented. The regulations were never promulgated, so it's sort of a notional cap more than anything.

To be honest, the goal here is to do our part to address climate change and reduce emissions. The important thing is that the cap has to be clear and declining over time to give industry an opportunity to respond and correct.

• (1725)

Hon. Michelle Rempel Garner: That's great. Thank you.

That's the point I was going to try to go to. I think if you look at the pathways project in Alberta, and you rightly talk about certainty for both industry and workers, I think the emissions cap framework that was articulated in the prior government is probably what a lot of the decision-making framework is being made around.

Are there any changes you would recommend, or would you just say that this is sufficient and let's promulgate this?

Mr. Gil McGowan: It's a start, but as I said, in order for it to be effective, it would have to be declining over time.

To your point about clarity, that's really important for decision-making for businesses and investors. As long as there's clarity, I think businesses will be able to adapt while at the same time addressing the goal of reducing emissions.

Hon. Michelle Rempel Garner: There are a couple of areas in which there isn't clarity right now, and I am wondering if your organization could provide its position on them.

The first is whether or not the cap should apply to approved projects that have not yet started in the energy sector. What's your position on that?

Mr. Gil McGowan: We haven't discussed that particular question.

One thing I would say is that—

Hon. Michelle Rempel Garner: Would you try to speculate?

Mr. Gil McGowan: A big concern for us is refining. The Alberta cap does not apply to the refining industry. My guess is that the federal government will want to extend it to cover refining as well.

Hon. Michelle Rempel Garner: On that point, with the time I have remaining, can you tell me whether your organization would support a recommendation that if the federal government is going to entertain a cap on the oil and gas sector then concurrently there should be caps placed on every other major emitting sector in the country so that we can have a more cohesive carbon emissions strategy?

Mr. Gil McGowan: The short answer is yes. I couldn't in good faith say anything else. Every industry has to do its part.

Hon. Michelle Rempel Garner: Thank you, Mr. McGowan.

The Chair: Now we're going to Ms. Lapointe, who will have five minutes.

Ms. Viviane Lapointe (Sudbury, Lib.): Thank you.

Ms. Adler, in one of your responses to my committee colleague Mr. Angus, you talked about wanting to see Canada as a leader and the requirement for clear policy direction. Could you share with us what, in your opinion, the top key elements to that clarity in policy direction would be?

Ms. Meredith Adler: One of the top key elements is definitely moving quickly on the creation of a cap around the oil and gas sector. Along with that is also looking at other sectors that are heavy emitters and creating plans with, potentially, caps for those sectors as well.

I think another key piece is to basically not be afraid to take a leadership position globally, as we saw at COP26, on what it will take to meet our nationally determined contribution, which we've committed to through the Paris Agreement.

Finally, we have a lot of questions about whose oil resources are the best in the world. Ultimately, we know, as has been pointed out, that oil production has to decline, and so leadership really looks not like trying to be the last barrel standing but rather like trying to be an economy that shows how we can cohesively transition in partnership with indigenous communities and other underserved communities in Canada and shows that we can work together across the country to be one of the success stories of the transition.

Ms. Viviane Lapointe: Earlier this week when this committee met, we heard from Merran Smith, who's the executive director at Clean Energy Canada. At our committee meeting, she stated that the battery is going to be the central part of the new energy system.

Can you tell us about any of the work Student Energy has engaged in around shifting from a fossil fuel energy system to cleaner energy systems like batteries to power vehicles?

Ms. Meredith Adler: The majority of our work happens at a global level. What we've looked at is what the intent is of young people and, really, that is going towards the net-zero future. I think it is clear that battery technology will be a big part of that, but there are a lot of other technologies that exist as well and have been pointed out in other reports here. What I think young people are really looking for, though, is the opportunity to be part of the transition, and the key issue right now is that there are not clear pathways into green jobs and into becoming clean-energy entrepreneurs, if you will.

There's a huge other piece of the just transition, and that is working with workers who are currently in the oil and gas sector and other heavy emitting sectors to provide for their future.

Another piece is really making sure that Canada is stepping up on the training and capacity building, especially when it comes to experiential learning. We have great R and D capabilities in this country, and we have good universities, but unfortunately right now it's not meeting the mark to prepare people for these jobs. We really need to look at the opportunity to be preparing people for this future and to be bolstering our talent pool to be leading in the future.

• (1730)

Ms. Viviane Lapointe: Thank you. That's a really good point about our universities.

My next question is for Ms. Carter.

Earlier this week, I asked a witness this question and, given your expertise, I'd like to hear your perspective on the question as well.

Can you tell me your thoughts on the different scenarios between a cap on emissions only versus a cap on emissions and a simultaneous cap on production in the oil and gas sector, and what that would look like in terms of environmental impacts coupled with impacts on jobs in the sector?

Dr. Angela Carter: That's a huge set of questions.

First of all, I would say that we are a good and long distance from a cap on production. As you know, I'm sure, this is really quite a difficult conversation to have in our current landscape.

At a minimum, what we need to do in Canada is to model, to plot, how it will look to have climate aligned production. Right now, we have the Canada Energy Regulator showing a continuing upward movement. That, of course, is not climate safe. That is not possible and, for all the economic risks, that's leaving open workers in communities to not a good path. We don't know what that curve looks like for us and we need to figure that out. We have to get that done quickly.

We don't have very much time, but that's what I would say. We're only starting on that journey. We have to at least model it and let industry know that it's coming.

Thank you.

The Chair: I'm sorry, Ms. Lapointe. We're out of time.

For our panel, we're at the end of the second round, and this takes us to 5:30. I'm going to suggest that we end at this point.

Witnesses, I want to thank all of you for being here and for the excellent insights you've provided on a very important topic. As I mentioned, I invite you to submit anything additional that you would like to provide in response to the questions or the good conversations we've had today.

By way of what's up next for the committee members, we have a constituency week next week, so we won't be here. The next meeting will be on Monday, February 28, when we'll continue our study. So far, we have five witnesses appearing. The notice of meeting will be posted for that very soon. The clerk is also looking at scheduling a subcommittee meeting following the February 28 meeting to discuss committee business. That's to be confirmed, so watch your emails.

With that, thank you so much to the witnesses and thank you to the committee members.

Ms. Rempel Garner, I'll turn it over to you for a minute.

Hon. Michelle Rempel Garner: This is not moving a motion or anything, Chair. It's just to say that in an attempt to try to get more feedback into the study, I would leave it to you and the clerk and would say that if you wanted to put out a press release asking for written submissions on the study, we would support you in doing that as well. I know there are a lot of witnesses who either haven't been able to appear or who have requested to appear but we won't be able to get to them.

The Chair: That's an excellent suggestion. I will work with the clerk on that.

I am hoping to have a report, for the week that we're back, on where we are so far. This would include which witnesses for each of the parties we've been able to get and which ones we're having problems with. If we need to put a call out for some additional witnesses, we'll do that. We're getting that information together over the constituency week.

With that, thanks, everyone.

The meeting is adjourned.

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