



HOUSE OF COMMONS
CHAMBRE DES COMMUNES
CANADA

44th PARLIAMENT, 1st SESSION

Standing Committee on Natural Resources

EVIDENCE

NUMBER 009

Monday, February 28, 2022

Chair: Mr. John Aldag



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• (1535)

[English]

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

Welcome to meeting number nine of the House of Commons Standing Committee on Natural Resources.

Pursuant to Standing Order 108(2), the committee is continuing its study of a greenhouse gas emissions cap for the oil and gas sector. Today is our fifth of eight meetings with witnesses for this study.

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

I think we have all been here enough times to know the health and safety information. Basically, we ask people to keep their face masks on if they're not speaking. For the members and anyone else who is here, please remain masked up.

For our witnesses, because you're new here, I'll go through a bit of information for each of you.

To ensure an orderly meeting, I'd like to outline a few quick rules to follow. Interpretation services are available for this meeting. You have the choice at the bottom of your screen of floor, English or French. Members and witnesses may speak in the official language of their choice. Because of the translation services, we don't want to speak too quickly. Go at a normal pace and allow for the occasional pause in your statements so that the interpreters can keep up. That way, we can make sure that all of our members and those watching can participate fairly in their official language of choice.

For members in the room, raise your hand and I'll try to work with the clerk to decide a speaking order, both from within the room and on the screen. If you're on Zoom, please use the "raise hand" function and you'll be placed in order. We will do our best to make sure that we are as fair in recognizing the speakers as we can be.

Before speaking, please wait until I recognize you by name. If you're on Zoom, please click on the microphone to unmute your

microphone. For members in the room, our team here will look after you. When you're not speaking, your mike should be on mute. I would remind you that all comments by members and witnesses should be addressed through the chair.

For today, on our study of greenhouse gas emissions cap for the oil and gas sector, I'd like to welcome our witnesses.

Appearing as individuals, we have David Keith, professor of public policy at Harvard Kennedy School; Andrew Leach, associate professor at the University of Alberta; and Jennifer Winter, associate professor at the University of Calgary.

From Environmental Defence Canada, we have Julia Levin, senior climate and energy program manager, and Dale Marshall, manager of the national climate program.

From the TC Energy Corporation, we have Robert Tarvydas, vice-president of regulatory strategy, and Christopher Vivone, director of federal government relations.

From the Trottier Energy Institute, we have Simon Langlois-Bertrand, research associate.

Each of the groups will be given five minutes for an opening statement. I have a handy timekeeping system. When you have 30 seconds left, I'll show you the yellow card. When your time is up, I'll show the red card. Don't stop mid-sentence, but wind up within a sentence or two. That applies when we're going through the rounds of questions as well, so that each of the members has their chance to interact with our esteemed panellists who are with us today.

With that, I will get my clock ready. We're going to the three individuals first for their five-minute opening statements.

We will start with Mr. Keith.

I will turn it over to you. You have five minutes.

Dr. David Keith (Professor of Public Policy, Harvard Kennedy School, As an Individual): Thank you very much for inviting me to speak.

First are some sound reasons to oppose a cap. Every tonne of carbon is equally bad for the climate, so why pick on the oil and gas industry emissions for a hard cap? The point, the entire point, of Canada's impressive carbon pricing scheme is to let the market find the cheapest and best ways to save tonnes rather than having the market be in the business of micromanaging individual sectors. We don't have a cap on Internet or air travel, so why oil and gas?

Yet I am in favour of a hard cap. My rationale rests on concerns about Alberta's and Canada's economic future in a carbon constrained world.

The climate is getting a much higher level of political attention at the top levels of major governments in a way that's really different from any time in the whole 30 years that I've focused my career on climate change. The world will not cut emissions as fast as environmentalists like me want, but they will be cut. Oil demand will peak and it will decline. The technology for accessing tight oil, fracking, will spread, putting a long-term restraint on prices and making Canada's oil, with its comparatively high upstream emission, relatively less competitive.

Even with war today, sadly, oil is 25% below its inflation adjusted price peak and futures point lower suggesting the market sees this as a blip.

I moved to Alberta from Pittsburgh. I've seen what a crash looks like. I've seen what it does to people. As an Albertan, one who wants to see good jobs for my children and my friends, including many friends in the oil patch, my judgment is that digging the economy deeper into oil and gas will just make the crash harder.

It's easy money now that we buy at the price of our children's economic future and of the planet's climate future. My hope is that government sends a clear message, a message that drives private ingenuity and investment away from oil and gas and towards new businesses that can harness Alberta and Canada's brain power, its engineering strength, its engineering services sector to develop new value-added businesses that can thrive in a world as oil and gas decline under a carbon constraint.

Some hope that a cap will drive investment in cutting emissions in upstream oil and gas. Even in some sense that's its formal purpose. It may. But despite serving years ago on the five person federal panel that recommended some of the key carbon capture and storage investments in Alberta, I hope that little effort is put into reducing upstream emissions. Doing so will just sink more money into cutting those emissions, and that can't in the long run secure Alberta's or Canada's economic future. It may divert money from other investments, so increasing our dependence on oil and gas.

After all, eliminating upstream emissions can only eliminate about a fifth of the overall emissions from the life cycle of oil and gas use. Most emissions come when the product is burned. The problem is the product, not the process of making it. That is the essential reason why Alberta and Canada must look beyond the oil and gas sector.

If we want a stable climate, we can't keep putting CO₂ in the atmosphere. We can argue about how quickly the transition needs to be there and there are legitimately different views, but we will have to stop.

I urge you to move towards a stringent cap on upstream oil and gas emissions both to protect the climate and because it is in the long-run interests of Albertans and other Canadians whose economies are tied to oil and gas.

Of course, people with short-run interests in the current system, the fossil fuel party, will argue the contrary, but theirs are not the only legitimate voices in Alberta.

Thank you very much.

• (1540)

The Chair: Thank you for your opening comments. It was just under the clock. We appreciate it. That gives us lots of time for the next opening statement.

Mr. Leach, we will turn to you for your five minutes.

Dr. Andrew Leach (Associate Professor, University of Alberta, As an Individual): Thank you very much.

[Translation]

Thank you for inviting me today. I'm pleased to be here to speak to you about this very important issue.

[English]

Canada will undoubtedly require more stringent policies to meet its commitments, its international and domestic commitments, to reduce emissions. I strongly support and have worked on the implementation of these policies, but with that in mind, I'm not convinced that a regulatory cap on emissions from the oil and gas sector is needed.

[Translation]

A sector-wide declining cap on emissions could represent a financial, technical and constitutional challenge, and lead to less cost-effective emissions reductions attributable to Canadian policies.

[English]

The oil and gas sector is Canada's largest emitting sector. Oil and gas production accounted for 191 megatonnes in our last inventory year of 2019, which is just slightly more than the 186 megatonnes that we measured for transportation. Importantly, forecasts show that these emissions are unlikely to decrease meaningfully unless more stringent policies are imposed.

There should be no question that oil and gas production contributes substantially to Canada's emissions. As Professor Keith so eloquently said, the emissions embodied in Canadian hydrocarbon production are a significant source of global emissions. Absent significant decreases in emissions from the oil and gas sector, Canada's goals will become increasingly challenging and eventually, for all intents and purposes, impossible to meet.

When you say something like that, a lot of times people will respond and say that the emissions intensity has been improving. I'd like to point out that this is not consistently true. The average Canadian barrel of oil has become more emissions intensive over the past three decades. The reason for that is simple. More of our barrels are coming from the more emissions-intensive oil sands. More of those oil sands barrels are produced using more emissions-intensive in situ processes. Within individual sectors the stories have been good, but overall there is not as much to sing about as some might have you believe.

The story is slightly better for natural gas, but there we only see a slight long-term decrease in emissions intensity.

What's driving this story? We know that the biggest driver for production and thus for emissions in the oil and gas sector are factors beyond our own borders, like commodity prices. Commodity prices are influenced by everything from technology to global development to the war that we've all been talking about these last few days.

High prices will generally mean more willingness to invest to maintain production in spite of carbon policy changes, but that type of analysis begs the question of whether oil prices, combined with carbon pricing and with a regulatory cap on emissions are going to lead, as Professor Keith said, to sufficient investment to decouple emissions from production.

My belief, like his, is that this is unlikely to happen, perhaps for a slightly different reason. Echoing some recent statements from industry leaders, there's just not enough long-term certainty on the policy side. There are some measures that can close this gap, like tax credits, etc., but a regulatory cap doesn't get you farther towards that goal.

The next thing I'd point out is that, in arguing for the Greenhouse Gas Pollution Pricing Act before the Supreme Court, the Attorney General argued strongly that economists support carbon pricing because it's the most cost-effective way to reduce emissions. They cited my own testimony before the finance committee of this House to support that claim, so I have to stick with that.

The cost-effectiveness of carbon pricing comes from applying the same price to a whole set of emissions—to as many emissions as you can.

• (1545)

[*Translation*]

With that in mind, I would ask two questions.

First, would we want more stringent policies applied on some sectors than on others?

Second, even if we did, do we need another mechanism or another policy to do so?

My answer to both of these questions is no.

[*English*]

I say we do not need more stringent policy on one sector than others and we do not need new policies, even if that is what we choose to do. Carbon pricing gives us all the tools we need.

That emissions in one sector are more resilient to carbon pricing is indicative that there is more value there per tonne of carbon emitted, which is what carbon pricing drives our economy towards. The judgments about whether that value will be present in the long term are generally not best made by governments. But, if government chooses to do so, Parliament has the means to ensure that carbon prices are reflective across the investment, production, export and combustion decisions related to hydrocarbons.

The carbon pricing regulation is there. The clean fuel regulations, the Bill C-69 measures and the tax code are all there.

In conclusion, if this proposed oil and gas cap is just an expression of what we expect policies to bring, so be it, but I question the need for and the efficacy of a new regulatory mechanism.

Thank you. I'm sorry for being 10 seconds over.

The Chair: Thank you, Mr. Leach. It's all good. There's a lot to think about there.

Ms. Winter, we'll now go to you for five minutes.

Dr. Jennifer Winter (Associate Professor, University of Calgary, As an Individual): Good afternoon. Thank you for inviting me to appear before the committee on this very important issue. It is a privilege to speak to you today.

I'm an economist, and my research expertise is energy and environmental policy. I focus on climate change policy and in particular, emissions reduction policies and their effects on households and emissions-intensive and trade-exposed industries. I draw on this expertise in speaking to you today.

Canada faces a challenge in reducing emissions and simultaneously protecting the quality of life and economic growth that we enjoy. I strongly support implementing increasingly stringent policies to meet Canada's commitments under the Paris Agreement. At the same time, adaptation to and mitigation of climate change is a complex problem, and the various policy solutions should be weighed very carefully. My comments today reflect both my support for emissions reductions and my desire to see thoughtful climate policy design that maximizes benefits and minimizes costs to Canadians.

From a global perspective, as well as for Canada's Paris commitments, the source of emissions does not matter. A tonne is a tonne, regardless of whether the emissions come from Nova Scotia or Alberta, from home heating or oil and gas production, and yet, as numerous witnesses at this committee have noted, the oil and gas sector is a significant contributor to Canada's emissions. The sector's emissions must decline in order for Canada to meet its 2030 and 2050 emissions reduction targets. This is the case for all parts of the Canadian economy, including households.

The important question facing this committee and the government is whether a cap on oil and gas emissions is necessary to achieve the desired emissions reductions. Specifically, what policy problem does the cap solve? I respectfully submit that the government already has the necessary policy tools at its disposal, and that a cap on oil and gas emissions would unnecessarily damage the Canadian economy. My concern is fourfold.

First, a sector-specific emissions cap overlaps with existing policy. Emissions pricing, whether the federal backstop or provincial or territorial systems, creates incentives for emissions reductions in both the demand and supply sides of the economy. On the demand side, the emissions price increases the cost of fossil fuel-based energy sources like gasoline and emissions-intensive goods and services. The emissions price lowers demand for these products by incenting changes in consumption patterns. On the supply side, emissions pricing increases the cost of production, incenting changes in production processes to avoid the price.

Moreover, the proposed clean fuel standard creates a market for emissions reduction credits, further incentivizing emissions reductions across the Canadian economy. This market ensures firms receive a return for investments in emissions reductions beyond avoiding paying the emissions price.

Given that these two policies are already in place, a cap on oil and gas emissions adds little to Canada's tool kit and is potentially more costly than beneficial, which leads me to my next concern.

Differential treatment of a specific sector reallocates capital and labour throughout the economy, moving these production inputs away from their most productive use. This artificially expands some sectors, shrinks others and lowers Canada's productivity.

Third, and relatedly, differential emissions prices, either implicit or explicit, in different sectors mean some firms engage in more costly emissions reductions than would otherwise be the case. This results in more costly emissions reductions overall, increasing the cost of meeting Canada's targets.

Fourth, an emissions cap for the oil and gas sector adds complexity in an already complex climate space. Canada already has differential prices via different provincial, territorial and federal systems, and adding an additional regulatory cap exacerbates this complexity. A cap on emissions would be administratively costly for the government and adds to the compliance burden for firms, increasing their costs. It needlessly complicates the Canadian climate policy landscape. Moreover, it moves us away from a consistent approach to emissions pricing across Canada.

Given these concerns, a direct approach is a more appropriate, easier and less costly way to reduce oil and gas emissions. This could include reducing output, increasing the stringency of the emissions price or reducing the output subsidy that emissions-intensive and trade-exposed sectors receive.

To conclude, I have three main points. First, there is nothing special about oil and gas emissions; a tonne is a tonne, and prices should apply uniformly to all sectors. Policy that ensures consistency in emissions pricing across the economy is vastly preferable to special treatment of one sector.

● (1550)

Second, Canada already has the necessary policy tools in place to reduce emissions from all sectors of the economy. The question is whether the existing emissions price is sufficiently stringent to meet these targets and sends a long-term signal to firms to invest in large-scale and expensive emissions reductions.

Third, using existing policy mechanisms avoids complexity and unnecessary and higher costs for the same emissions reductions.

Thank you for your time. I look forward to answering your questions, and I apologize for going over time.

● (1555)

The Chair: Thank you for your opening statements, Ms. Winter. I'm sorry to have rushed you at the end. There will be lots of time for discussion.

We're going to Environmental Defence Canada. I believe that Mr. Marshall is going to be providing the opening statement.

If that's correct, Mr. Marshall, it's over to you. You have five minutes.

Mr. Dale Marshall (Manager, National Climate Program, Environmental Defence Canada): Thank you, and thanks for the invitation.

I'm joining from the unceded territory of Algonquin Anishinabe peoples, also called Ottawa.

I'd like to start with today's report from the Intergovernmental Panel on Climate Change, which frankly paints a terrifying picture of our future if Canada and the world doesn't tackle fossil fuels with the urgency needed.

The report states:

"The scientific evidence is unequivocal: climate change is a threat to human well-being and the health of the planet. Any further delay in concerted global action will miss a brief and rapidly closing window to secure a liveable future".

The blind spot in climate change for Canada for 30 years has been the oil and gas industry. While other sectors have reduced greenhouse gas emissions, oil and gas companies massively increased their production and emissions, and emissions from Canada's fossil fuel exports are increasing even more rapidly and are now greater than Canada's total greenhouse gas emissions. Now, however, Canada has an opportunity to shine a light on that blind spot and to address the root cause of climate change: fossil fuel production and use.

Prime Minister Justin Trudeau committed to cap oil and gas emissions today and to ensure that they decrease tomorrow at a pace and scale needed to reach net zero by 2050. This will be the defining moment for the Prime Minister's legacy on climate change.

The oil and gas lobby will attempt to weaken, delay or kill this policy because it disrupts their business model of pumping more and more fossil fuels into the global market and more and more carbon emissions into the atmosphere.

Many companies, including the major oil sands companies, have actually pledged to reach net zero by 2050, the goal of this policy, so why have so many oil executives already opposed it? Pure greenwashing. Their net-zero plans are vague and weak, with far-off promises, loopholes to allow emissions reductions from other sectors and other countries, a reliance on false solutions for the oil and gas sector, like carbon capture and storage and blue hydrogen, and an expectation that Canadian governments will hand over \$50 billion or more in subsidies to realize them.

The Prime Minister must not blink from the inevitable pressure and hostile attacks from big oil's lobby and PR machine. The IPCC noted that misinformation and active resistance to climate action from the oil and gas industry have made us more vulnerable. It's time for the federal government to act in the interest of all Canadians.

Capping oil and gas emissions is a key part of this, but to do so, the government must do the following:

One, set hard caps for 2025 and 2030 that represent the oil and gas sector's fair share of emissions reductions. For 2030, that's a 60% reduction below 2005 levels, or 65 million tonnes.

Two, include all emissions from the production and use of oil and gas. Addressing only production emissions means ignoring 80% of the problem.

Three, deny subsidies and loopholes to oil and gas companies. The polluter pays principle must apply here. Canadian oil and gas companies will make \$200 billion in profits in 2021 and 2022, and yet they shamelessly go to Canadian governments, cap in hand, asking for corporate welfare to reduce emissions.

Four, put people first. The oil and gas cap must be aligned with a full and sincere implementation of the UN Declaration on the Rights of Indigenous Peoples and a fair, managed and government-funded transition for workers and communities.

These are ambitious caps that we're calling for, but they are possible, and they are appropriate, so how can these caps be met? In addition to placing a hard cap using the Canadian Environmental Protection Act, there are four complementary actions that the federal government should take.

First, stop approving new oil and gas projects. Economic attrition would shrink Canadian oil and gas production by over 30% this decade and reduce carbon emissions commensurate with that. That includes the offshore oil project Bay du Nord, which will be a carbon bomb for the planet.

Two, strengthen methane regulations immediately. At least 20% of GHG emissions from oil and gas facilities are in the form of methane, and yet reducing those is very cheap. Today, methane from oil and gas can be reduced by 88% at less than \$25 a tonne.

Three, call the industry's bluff on emissions intensity. The industry has committed to getting to net zero by 2050. If that were achievable, then emissions intensity should improve considerably in this decade.

Four, remain steadfast on a hard, enforceable cap, with still penalties for non-compliance. If the other three measures aren't enough for the oil and gas sector to do its fair share of emissions reductions, then companies will have to curtail production. The alternative is to let companies escape responsibility and impose catastrophic impacts on the rest of us.

• (1600)

This is a critical test for the Prime Minister. Despite the progress on climate policy in recent years, Canadian greenhouse gas emissions remain unacceptably high. The Prime Minister must remain steadfast in the face of the inevitable ferocious attacks from the oil and gas lobby and put into place robust regulations to curb pollution from Canada's biggest polluters.

The Chair: Thank you for your opening comments.

Now we're going to TC Energy Corporation.

Who's going to do the opening comments?

Mr. Robert Tarvydas (Vice-President, Regulatory Strategy, TC Energy Corporation): I'll be making the opening statement, Mr. Chair.

The Chair: You have five minutes. Please proceed as soon as you are ready.

Mr. Robert Tarvydas: Thank you, Mr. Chair.

Hello and good afternoon, committee members.

TC Energy recognizes the important work this committee is doing to seek out and listen to a wide range of perspectives on the development of an oil and gas emissions cap, and we appreciate the invitation to share our views. With over 65 years of experience, TC Energy is a leader in the responsible development and reliable operation of North American energy infrastructure.

We recognize the importance of addressing climate change and a significant undertaking to transition Canada's economy for a low-carbon future. In October 2021, we announced new targets to reduce the GHG emissions intensity from our own operations by 30% by 2030 and are positioning the company to achieve net-zero emissions from our operations by 2050. We support the goals of the Paris Agreement and are ready to undertake the critical challenge before us as we move to a low-carbon future.

We know a strong climate change policy will take a collective effort amongst industry, government, communities and consumers to achieve meaningful emissions reductions. As government considers the scope for an oil and gas emissions cap, we believe the desired policy intent can be achieved by focusing solely on direct GHG emissions occurring within oil and gas industry operations.

Focusing on scope 1 emissions adheres to the principle of environmental responsibility and liability, which forms the foundation of environmental regimes in Canada and internationally. Moreover, focusing solely on scope 1 emissions will help avoid double counting, regulatory and decarbonization inefficiencies, negative energy security and economic impacts, and implications to cross-jurisdictional collaboration, both interprovincially and internationally. In doing so, government can utilize existing complementary levers, such as carbon pricing, methane regulations, clean electricity stan-

dards and clean fuel regulations to achieve the desired emissions reductions objectives in the most efficient and cost-effective way for industry and consumers.

We see numerous opportunities to decarbonize our own pipeline operations in both the near and long term. Asset modernization will help reduce vented and fugitive methane emissions associated with regular operations and maintenance and improve overall operational efficiency. We've already achieved notable operational emissions reductions through turbine retrofits.

To address methane emissions, we recently piloted a field trial of a zero-emissions vacuum compressor during inline inspection. We intend to reduce our carbon footprint by converting gas compressor stations to electric motor drives, and to decarbonize our power consumption by sourcing renewable and low-carbon power. Renewable natural gas and hydrogen blending opportunities will further reduce our emissions profile.

In Quebec, TC Energy has transported renewable natural gas from two landfill sites since 2002 and helped advance the province's standards for biomethane transportation. Through the Alberta carbon grid, TC Energy will play a key role in deploying carbon capture utilization and storage technology. We are actively developing and deploying advanced software and systems to enhance our ability to monitor and track emissions across our systems.

Government must ensure that industry's ability to adhere to an oil and gas emissions cap is achievable and economically efficient. The inability for the oil and gas sector to cost-effectively decarbonize to the levels required by an overly restrictive emissions cap would effectively create a cap on production, with irreversible impacts on energy security, reliability and affordability. This would significantly impact both Canada's economy and balance of trade, while having a negligible impact on global emissions as production moves to jurisdictions with inferior ESG profiles.

For context, the Canadian oil and gas sector provided \$105 billion to Canada's GDP while supporting nearly 400,000 jobs in 2020. Commodity price recovery since 2020 will significantly increase this figure in the years following. Inefficient cap implementation would jeopardize the sector's key contribution to both national jobs and GDP, while negatively impacting energy affordability for other industrial sectors and Canadian consumers.

A healthy oil and gas industry is also needed to allow industry to support economic reconciliation priorities and financial opportunities for indigenous groups. At TC Energy, we want the future of Canadian energy development to be more equitable and inclusive for indigenous peoples and communities, and we are taking action to contribute to lasting change through our own reconciliation action plan. Projects like Coastal GasLink are providing significant benefits to indigenous communities, with over \$1 billion in contract awards to indigenous businesses or their joint venture partner businesses.

Thank you for providing me the opportunity to provide you with TC Energy's overarching perspective. I'll be glad to address any questions you may have at the appropriate time.

• (1605)

The Chair: Thank you for your comments.

Our last opening statement will be from Institut de l'énergie Trottier, with Mr. Langlois-Bertrand.

I'll turn it over to you, for five minutes.

[*Translation*]

Dr. Simon Langlois-Bertrand (Research Associate, Trottier Energy Institute): Thank you for inviting me and giving me the opportunity to provide information on this very important topic. I hope you'll find it useful as you consider this measure.

I will be making my opening statement in English, but I'll be happy to answer questions in the language in which they are asked.

[*English*]

The remarks I'm making here are based on two sets of work. The first is the extensive modelling work we did as part of our Canadian energy outlook, which we publish every few years. It assesses trajectories to meet differentiation reduction targets, including the current 2030 and 2050 targets. The second set of work is sectoral analysis that we do for the shorter term, including more recent trends and how actors are moving at the moment.

When considering the cap, to get to the 2030 GHG reduction target of 40% to 45% compared with 2005 levels, which is to say, roughly, today's emissions levels, Canada needs 5% year over year reductions for the entire economy. To achieve this short-term target, it's necessary to focus on sectors where deep emission reductions are possible in the shorter term, while at the same time, initiating changes in other sectors where short-term reductions are more challenging.

Meeting the 2030 target means that the government must focus on sectors that can transform deeply in less than a decade. At the same time, they can delay starting the broader changes needed for the 2050 net-zero goals in sectors that will move more slowly. The correlator to this is that for some sectors, it's very difficult to foresee a 40% to 45% reduction by 2030. This can be due to cost, for instance, in sectors where technology is in earlier stages of development, like heavy transport. This can also be due to technological challenges such as in some industrial processes where no carbon alternative exists at the moment.

For these reasons, the 2030 short-term target must be considered with care and implies the identification of these differences across the entire economy. With this in mind, most substantial reductions to achieve the 2030 target should come from the oil and gas sector. This is both the cheapest way to meet a country-wide target and the most straightforward. In our modelling, we estimate the need at more than 60% of emissions reduction for the sector compared with today's levels, and that's assuming that all other sectors are perfectly successful in their own reductions.

Although these reduction levels are certainly massive, it's important to note that not reducing emissions from oil and gas production by that extent means that other sectors will have to compensate in order for the economy to meet the 2030 target, which means that more expensive and, in some cases, more technologically challenging transformations will be needed elsewhere, for instance, in other industries, in the transport sector and so on. This is not to say that deep and rapid reductions in emissions from oil and gas production can substitute for substantial measures as part of the policy portfolio for other sectors. Rather, it's essential to understand that the 2030 target cannot be achieved without a deep transformation in the oil and gas sector.

In terms of the cap, a hard cap on emissions for the sector could be implemented in a variety of ways and can lead to transformations of different forms, as previous speakers have noted. It includes limits to production levels and, of course, also a very rapid ramp-up in improvements to emissions intensity, carbon capture and storage where it may be economical, and so on. The important thing to remember is that imposing this cap for the industry, through a cap and trade system for instance, could let producers and refiners decide how to meet their obligations.

Importantly, the theoretical effect of the cap is to drive innovation and investment—at least that's the idea—but whatever the means to meet the cap, CCS or whatever else, as long as the reductions are there, perhaps that's the most important thing.

Perhaps as importantly, the imposition of a cap with a clear schedule for reductions has the benefit of contributing to eliminating one of the key barriers to transformation across all industries, which is the policy uncertainty surrounding the climate pledges. To initiate the investments and encourage the innovation needed to achieve our climate targets, industry actors need a stable investment environment, and a stringent cap on emissions from the most emissions-intensive sector would certainly be an important stepping stone in doing this.

Although it's not limited to choosing to impose a cap or not in order to reduce emissions, given the depth of the transformation that we're talking about here and the fact that part of this industry may need to reduce production to meet the cap, any measure should be accompanied by support to offset any negative economic impacts from decarbonization on communities and workers, proportional, hopefully, to the economic disruption caused by meeting specific targets.

• (1610)

The Chair: That's excellent.

Thank you, everybody, for your opening statements.

Just before we get into our rounds of questions, we've received a notice, since the meeting started, from the procedure and House affairs committee that a change to our committee has been formalized. With that I'd like to officially welcome Mr. McLean and Mr. Bragdon, who will now be regular members of our committee.

Welcome. Mr. McLean, I know you've been here before, so welcome back.

[*Translation*]

Mr. Greg McLean (Calgary Centre, CPC): Thank you, Mr. Chair.

Thank you, as well, to my fellow members.

[*English*]

The Chair: Mr. Morrice, I would also like to acknowledge that you're here and joining us once again. It's good to see you as well.

We're going into our rounds of questions. Each of the first four members will have six minutes.

For the witnesses, I know some of you have been here before. For those who are here for the first time, I very much let the members control their time. They will decide who they're going to ask questions. If you have something, you can try raising your hand, but it will be up to the member to decide if they want to go there or if they want to pursue their own line of questioning. Sometimes they can be a bit short, just because they have a limited amount of time and want to get through as much testimony as they can.

With that, we'll get started.

Mr. Melillo, I believe you're up first. It's over to you for six minutes.

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

I want to thank all of our witnesses for taking the time to join us today and to have a conversation about this important topic.

I would like to start with the folks from TC Energy, whoever is going to answer.

In your opening remarks you talked a bit about economic reconciliation. It's obviously an important principle for all the industry we have across the country. It's important in my riding and, of course, for oil and gas as well.

This is a bit of a broad question to start off with, but I'm just wondering if you could speak about the importance of economic reconciliation and the impacts oil and gas projects can have on first nations, particularly in western Canada.

Mr. Robert Tarvydas: I can, certainly, and thank you for the question.

Mr. Chair, one of the defining factors of the oil and gas industry is that a lot of the activity takes place in fairly remote places in Canada, which also happens to be where a lot of indigenous communities are located. In some circumstances, participating economically in the development of energy in Canada provides some of these communities with one of the few opportunities they have for economic participation. As the development has occurred in some of these communities, they have actually had opportunities to participate meaningfully through both contracting and direct employment.

If there were a decrease in the development of energy in those places, then you would see a concurrent decrease in the opportunities for indigenous communities to participate in the development of energy and also fewer opportunities.

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

Again, I have limited time, and I don't mean to cut you off, but I'm trying to get in as many questions as I can.

I'll come back to you as well, because I know the oil and gas sector specifically has done a lot of work to innovate and to find ways of doing things more sustainably and in a more environmentally friendly way. Again, this is another broad question for you. Could you chat a bit about some of the work that your organization has done to ensure that production is innovating and is as environmentally sustainable as possible?

Mr. Robert Tarvydas: Just to be clear, we are a midstream company, so we actually don't produce any oil and gas ourselves. We are primarily a transportation company and a power company.

I can talk very briefly, though, to the fact that we participate with a number of universities and industry associations and we fund a number of R and D initiatives to make sure that things like emissions monitoring and methane monitoring are done as efficiently as possible and that we're pushing the bounds on those all the time.

Mr. Eric Melillo: Thank you very much for the answer. I appreciate that.

Obviously, as well, there's been a discussion in the last week or so about what's happening in Europe with Russian aggression and the horrible war we're seeing now in Ukraine. I think it's really sparking a conversation across the country about Canada's ability to be more energy independent and to produce more here at home.

On Twitter, the Prime Minister has actually said that he plans to ban all imports of Russian crude. I don't know whether my colleagues across the way can confirm that for me, but I think that's definitely a positive step our country should take. Again, it goes back to how important it is that we're supporting Canadian industry here.

Can I get your thoughts on how an emissions cap might impact projects in Canada if it's on production broadly rather than on emissions specifically?

• (1615)

Mr. Robert Tarvydas: Mr. Chair, the very nature of energy security, of course, is very much top of mind given the events unfolding, unfortunately, in eastern Europe right now, as is often the case. Yet we also saw the United Nations report come out currently, which paints this very bleak picture of a climate change future.

I think it is, though, possible for the oil and gas industry to continue to produce with some of the technologies out there, like carbon capture and storage and direct capture from the atmosphere. I don't see that keeping production the same or increasing production is completely incompatible with meeting emissions goals.

I'd say again that it depends on the policy outcome you want. Are you trying to reduce emissions or are you trying to reduce production by the oil and gas industry? I think that designing an emissions cap inappropriately could have unintended consequences, specifically reducing the production of oil and gas when it may not be necessary to do so if emissions reductions are ultimately your goal.

Mr. Eric Melillo: Would you have any worries or any reservations that an emissions cap could ultimately result in carbon leakage?

Mr. Robert Tarvydas: Well, as I said in my opening statement, I think it is a very real possibility that a hard emissions cap that results in a production cap or, effectively, a cap on production or even a decrease in production would likely result in leakage to other jurisdictions with environmental standards that are perhaps not as strict as Canada's.

Mr. Eric Melillo: I appreciate that.

I don't think I have any time for a question, but the next one I would have asked would be about the effectiveness of an emissions cap. I'd be curious to get the thoughts of the witnesses on whether we should be looking at a cap for sectors across the country or specifically for oil and gas.

I am out of time. Unfortunately, I can't have any of you answer that right now. If you can keep it in mind if it happens to come up in future questions, I'd appreciate it. Thank you again for your time.

The Chair: Witnesses, you are invited to send in additional information based on your interactions today. We ask that it be kept to no more than 10 pages. If there are unanswered questions or you have additional thoughts, please feel free to send those to our clerk. She'll get that information to our committee.

We're going now to Mr. Chahal, who will have six minutes.

It's over to you, Mr. Chahal.

Mr. George Chahal (Calgary Skyview, Lib.): Thank you, Chair. I also want to thank all the witnesses for joining us today.

I welcome new members to the committee Mr. McLean, from my city, Calgary, and Mr. Bragdon. I look forward to working with you.

I'll start off my question with Ms. Winter.

Ms. Winter, what forms of support do you believe the Government of Canada should provide for technological development to reduce emissions? What measures do you believe are less effective in reducing emissions?

Dr. Jennifer Winter: Thank you for the question.

I would say that support for technological innovation should be put in place to address market failures. By that I mean not just the problem of emissions reductions but market failures insofar as innovation is a public good, so the benefits to society are broader than the benefits to the innovator. The policies should be, of course, carefully constructed to address that question and also to consider overlap between policies, in that emissions pricing itself provides that signal for innovation.

• (1620)

Mr. George Chahal: Thank you for that.

I'm going to Mr. Tarvydas.

Mr. Tarvydas, there's been a lot of talk about natural gas being the bridge to a net-zero future. What is the role of natural gas as we move forward to a net-zero future? What are the challenges and opportunities with investments in natural gas and natural gas infrastructure?

Mr. Robert Tarvydas: Mr. Chair, I think natural gas has already played an important role in transitioning to a lower-carbon environment. The United States has achieved dramatic reductions in their own GHG emissions by moving from coal to natural gas-fired power, and the same has happened in some jurisdictions here in Canada. We're already seeing the role that natural gas can play and will continue to play. Here in Alberta, we've seen the phasing out of coal much earlier than even originally planned. It is, at least partially, the direct result of the move to natural gas-powered generation.

Natural gas also continues to play a pivotal role in certain industries where fuel substitution is either uneconomic or not even viable in some instances.

Don't forget that natural gas also plays a role as a feedstock in petrochemicals. Its use is not necessarily just in being burned to provide energy along the way.

I think it's probably safe to say that natural gas has already played an important role in the transition. It will continue to play a role in the transition. With the opportunity for things like carbon capture and storage or the direct capture of emissions from the atmosphere, it should be possible that natural gas can continue to play a role in the energy mix going forward.

Mr. George Chahal: I'm glad you mentioned carbon capture and storage, because that was my next question.

Your role is at TC Energy and the Alberta Carbon Grid. As an Alberta MP, energy is top of mind for all Albertans—all types of energy. We want to be a global leader in all things energy, including clean energy.

On the role of the Alberta Carbon Grid and meeting our future goals, what type of investment is required to achieving our goals, and what type of investment has TC Energy made in this?

Mr. Robert Tarvydas: I'm sorry. Could I ask for a clarification?

Are you looking for a quantum of dollars or are you looking for a general statement about the kind of investment that would be required in this area?

Mr. George Chahal: I'm looking for a bit of both: a total investment to reach our goals, from your perspective, and a current investment by your company in this Alberta Carbon Grid to meet our goals from what you're doing.

Mr. Robert Tarvydas: Thank you for the question.

Mr. Chair, the quantum in terms of carbon capture and storage, even within the Alberta context, is probably going to require investments in the billions of dollars. The Alberta Carbon Grid, as envisioned right now, is probably on the order of magnitude of many billions of dollars, probably \$5 billion or more—along those lines.

Right now, our investment has largely been limited to investigative studies and doing some of the preliminary regulatory work. It would be in the millions of dollars that we have invested so far.

Mr. George Chahal: Do you believe that these investments made can be done without government incentives? Can industry do it alone?

Mr. Robert Tarvydas: Anything is possible.

When we look across the North American environment, though, we operate in a competitive environment, especially with the U.S. The U.S. has an example of a tax credit for carbon capture and storage, which has probably led them to take a bit of a lead in terms of that technology. I think we can still catch up, but I believe that obviously the technologies can be accelerated with the use of potentially some sort of a tax incentive from government.

Mr. George Chahal: Thank you.

I believe my time is up.

The Chair: It is up.

Now we're going to Monsieur Simard, who has six minutes.

[*Translation*]

Mr. Mario Simard (Jonquière, BQ): Thank you, Mr. Chair.

We're off to a good start, so I'm going to continue along the same lines.

My question is for the TC Energy representatives.

In their statement, one of them said that the sector would not be able to remain profitable if the government tightened the rules too much.

I have trouble seeing how it's possible to reduce the emissions intensity of the oil and gas sector without making huge investments

in the carbon capture and storage technologies we hear so much about.

I'd like one of the TC Energy representatives to clearly tell us whether that is something the industry alone can accomplish, without the financial support of the government.

• (1625)

[*English*]

Mr. Robert Tarvydas: Mr. Chair, I think there are two parts to the question. I'll try to address both of them.

In my opening statement, what I was specifically referring to is the risk that a very prescriptive regulatory framework for an emissions cap would reduce the degrees of freedom for operators in the oil and gas sector to comply. Obviously, the more prescriptive the regulatory environment, typically the more expensive it is to comply. That's why you heard some of the statements from some of the economists at the beginning—

[*Translation*]

Mr. Mario Simard: I don't mean to cut you off, but I think I want to narrow down your answer a bit. I believe Professor Leach said in his opening statement that a barrel of oil had never been as emissions-intensive as it is today. The emissions intensity of a barrel of oil is rising, not declining.

It feels as though you're trying to convince us that it is possible to produce oil with a lower carbon footprint. Personally, I think it's impossible to do in a cost-effective way. As soon as you try to lower the emissions intensity of oil, you automatically have to invest in R and D. In light of that, I want to know whether your sector is cost-effective or not. If it can't be done without the financial support of the government, we have a real problem.

I'd like a clear answer to that, please.

[*English*]

Mr. Robert Tarvydas: Mr. Chair, if I understand the question to be whether the industry can support R and D without government tax credits, the answer is yes, but in a globally and certainly continentally competitive environment, it's probably important to keep Canadian industry on the same footing as U.S. industry, and that's where potentially tax credits come into play.

[*Translation*]

Mr. Mario Simard: We know two big projects are under way in Alberta to sequester, capture and store carbon, with the Alberta and federal governments providing 57% of the funding. That tells me your sector isn't able to make oil production less carbon-intensive. On top of not being able to reduce its carbon intensity, the sector doesn't want an emissions cap.

What is your solution for reducing oil and gas sector emissions? I can't see it. You want to put the burden on all the other emission-producing sectors, when you're the biggest emitter of greenhouse gases.

[English]

Mr. Robert Tarvydas: Mr. Chair, I'm not sure where the honourable member got the idea that I'm not, or my company is not, in favour of a cap. I actually indicated that we were in favour of it during my opening statements.

[Translation]

Mr. Mario Simard: Yes, you're in favour of a cap, but my question is whether you can adhere to a cap without financial support from the federal government.

Can you do that?

[English]

Mr. Robert Tarvydas: Mr. Chair, I honestly don't know the answer to that question. I believe that right now there has been interest from government levels in supporting the development of this new technology. Just like any new technology, including some renewable energy sources, they were all supported by government initially and probably would not have been as economic as quickly as would otherwise have been the case. I think that's no different in the case of carbon capture and storage.

[Translation]

Mr. Mario Simard: I have a question for Ms. Winter.

In your opening statement, you said that the source of emissions didn't matter and that the oil and gas sector should not be singled out. I can give you some real-life examples. Where I'm from, aluminum is a major industry. In a few years, the sector will have managed to produce carbon-neutral aluminum thanks to inert anodes. Almost all the R and D costs were assumed by Rio Tinto, which made a decision to get in the carbon-neutral aluminum game.

When I see the mountains of taxpayer money being invested in Canada's oil and gas sector, I think it's a bit rich to say that the source of the emissions shouldn't matter. We all know oil is the problem. Disregarding the source of the emissions places the burden on all the other sectors of the economy. That is more or less what one witness told us.

Do you agree with that statement?

• (1630)

[English]

Dr. Jennifer Winter: Respectfully, I would say that the problem of emissions is due to consumers. Firms are supplying the products that consumers want and the fossil fuel sector is a cheap source of energy.

My comment about where emissions come from is that what we should focus on is the least-cost emissions reductions first, not target specific sectors.

Thank you.

The Chair: Thank you. We're out of time on that.

Now we're going over to Mr. Angus, who will have his six minutes and first round of questions.

Mr. Charlie Angus (Timmins—James Bay, NDP): Thank you. It's a great honour, always, to sit at this table.

I sometimes feel as though I'm living in a world of disconnect, because this is a conversation that I think would have been great in 2004, 2006, 2008, and we would have all trusted that things were going to get done.

Yet, I read the IPCC report today. It is painting a picture of a catastrophe unfolding in real time. It completely goes after the big emitters, countries, failing to do their job. It talks about "an atlas of human suffering & damning indictment of failed climate leadership". And yet, I see, well, you know, we'll just carry on and things will work.

Mr. Marshall, I'd like to ask you, based on what you're seeing from the IPCC and based on Canada's record, do we have any chance of meeting our international targets at the rate we're going?

Mr. Dale Marshall: We're going to need stronger policies to do that. As I've said, the blind spot or the sore thumb for Canada for the longest time has been our oil and gas industry. Unless we put into place the kinds of policies that are needed to address those emissions in a real way, we're not going to reach our targets.

Let's remember that the target we have in place is the weakest in the G7. By every measure, Canada's climate record is the worst in the G7. We have the weakest target. Our emissions have gone up the most.

Mr. Charlie Angus: I'm going to jump in there—

Mr. Dale Marshall: Yes, please.

Mr. Charlie Angus: —because the environment commissioner accused this government of being an outlier, of being the worst in the G7. Minister Wilkinson said it was a difference of opinion. I think that's one heck of a difference of opinion.

I asked Minister Guilbeault about the IPCC report today, because I have actually never heard the Liberals talk about the caps since the Prime Minister announced them at COP26, patted himself on the back and went home. Minister Guilbeault said today that carbon pricing wasn't enough.

Mr. Marshall, do you believe that carbon pricing is enough to bring down the rapidly growing emissions that we see predicted for the oil sands sector?

Mr. Dale Marshall: No. We need an additional measure that is going to ensure the certainty of the emission reductions. That's a hard cap that's enforceable and that has sanctions for those companies that go beyond their cap. That can be put into place through the Canadian Environmental Protection Act. It's been done in the past with sulphur dioxide, for example, for acid rain.

In order to have the certainty for reductions of emissions from the fastest growing source of carbon pollution, we need a real measure that is going to address directly the carbon emissions by putting on a hard cap.

Mr. Charlie Angus: I think this is really interesting, because I come from northern Ontario, where our lakes were being destroyed by acid rain. They brought in clear caps. Now our lakes have come back.

We're told all the time, and we've heard it today, that the market will figure this out. You know, you put a price on carbon, and emissions are going to go down. Yet Canada's energy regulator has factored in the price of carbon, and they are expecting an increase of at least a million barrels a day. The Canadian Association of Petroleum Producers know what the upcoming price on carbon is going to be and they are talking about major increases. What they are talking about is major increases for export because they know those are not going to be counted in terms of emissions.

If industry and our regulator are planning an increase of a million barrels a day, helped obviously by the \$21-billion TMX pipeline to export that, do we have any credible sense that this government's cap in any way will reduce emissions?

• (1635)

Mr. Dale Marshall: That's the thing. The carbon price, which was an increase, was announced several years ago. Yet, when you look at the Rystad cube data, oil and gas companies are planning on increasing their production and emissions by 30% between now and 2030.

Mr. Charlie Angus: They've factored in the carbon price and it is still extremely profitable for them to do that.

I want to ask you, though, about this issue of intensity targets. I remember with the Harper government it was intensity targets all the time. It's sort of like we're being told, "Don't worry. If we deal with intensity targets, we're going to lower emissions." It's kind of like telling people, "Listen, if you're a teenager and you smoke light cigarettes, you're not going to get cancer." We haven't actually ever seen the emissions go down. The emissions have gone up consistently over the last 20 years.

How important do you think it is to put the full nature of the emissions in?

The emissions from oil and gas export are more than all the emissions put together in all the sectors. If we counted those in, would we have a much clearer picture of Canada's massive carbon imprint on the planet at this time of crisis?

Mr. Dale Marshall: That's why we have to address the full scope of emissions: scope 1, scope 2 and scope 3. The downstream emissions should be included in this cap and be addressed through policy that is in federal jurisdiction.

Dr. Leach—

Mr. Charlie Angus: I'm running out of time here and I want to ask you very quickly about the cap.

What should it begin at? Should we allow for an increase of 30%? Should we be at 2019 levels? How should we bring that down to meet what we're telling the world we'll meet by 2030? What would that cap have to include as a hard cap to actually get us there?

Mr. Dale Marshall: Our proposal is that the cap starts at 2019 levels but decreases to a level in 2030 that's 60% below 2005.

That's Canada's fair share. That gets us to 64 megatonnes. That is a significant decrease, but as I laid out in my comments, there are a number of ways that the federal government, within its jurisdiction, can ensure that cap is met.

Mr. Charlie Angus: Thank you.

The Chair: Thanks. I appreciate everybody moving this along.

We're now going to Mr. Maguire, who will have five minutes for his round of questions.

Mr. Larry Maguire (Brandon—Souris, CPC): Thank you, Mr. Chair. I would certainly like to follow up and thank all of our online visitors and witnesses today for their presentations.

Thanks to Mr. Tarvydas for his presentation from TC Energy Corporation.

The goal is to try to bring down the greenhouse gas emissions. You want to be a premier source of carbon-free energy for North America in particular, which helps the world, in the industrial natural gas and oil sectors. The investments in technology are one way to do that.

I want to ask you a question about what's happening on the ground today. There have been lots of changes in the last few days, and numerous people are calling on governments around the world, not just here in Canada, to stop purchasing Russian energy.

It's clear that if countries cut them off, Canada couldn't immediately meet that energy demand in places like western Europe. It is relevant. It's not just looking after ourselves; it's looking after our allies as well. While it's too early to determine the worldwide long-term energy implications due to Putin's unprovoked war, I'd like to ask what advice you have to the government on building that uncertainty into this emissions cap regulation process.

Mr. Robert Tarvydas: Mr. Chair, the question of energy security, and potentially reliability, is one that requires long-term investments. One of the asks we would have of this committee and this government, as you're considering developing policy instruments related to emissions caps, is to take a long-term view to provide industry with as much certainty as possible, because the very long lead time for some of these investments—capital costs for some of these investments—is very high.

Obviously, as you stated, you can't create LNG terminals overnight. You can't build pipelines overnight. These things take many years to put in place. However, as the world considers the role of energy security and energy reliability as we go forward, even in the context of the global climate crisis, I think it is important that this government consider the importance of providing policy stability and certainty as it considers these regulations.

There's another component of that too, if I may add, which is the consideration of how these policies interplay with each other. Our recommendation is that any policy that's put in place is consistent with the Paris Agreement and with existing policies that are already in place. It would be, I think, quite helpful to see a comprehensive study of all the climate policies already in place in Canada at the federal and provincial level to actually see how they currently interact with each other.

• (1640)

Mr. Larry Maguire: Thank you. That's interesting.

The other side is that if Russian energy was removed completely from world markets, does Canada have the distribution and production means to help fill that gap in order to cut off the Putin regime from those dollars right now? Bill C-69 comes to mind, but there are other areas. I'd be most interested in your thoughts in regard to what our distribution production systems would look like if Russian energy was completely cut off.

Mr. Robert Tarvydas: For clarity, honourable member, are you talking about just within the Canadian domestic context or whether Canada could play a broader international role?

Mr. Larry Maguire: Well, could Canada play a broader role because of what was cut off from the rest of the world? I meant the Russian exports and their production as would need to be done here. What would Canada's role be and where are we at in regard to the distribution production that we have presently?

Mr. Robert Tarvydas: Canada does have substantial resources of both oil and gas, so to the extent that there was a requirement for Canada or other nations to step in to fill the gap that was left by an isolated Russia, I think Canada would have the resource space to do so.

In terms of the infrastructure to get those resources to market, obviously probably at the margin there is some capacity to increase production of both oil and gas—less on the oil side—and it would require some additional investment, I think, in infrastructure to make that happen.

Mr. Larry Maguire: Yes, even in the short term for the needs that we may see.

We've talked about this system being an energy—

The Chair: Your time is up.

Mr. Larry Maguire: Could I ask just a quick one, Mr. Chair? Thank you.

I'll go right to this one: What role do you think nuclear energy could have in Canada's getting to net zero?

Mr. Robert Tarvydas: Well, as the member may be aware, TC Energy is actually an investor in the Bruce nuclear power plant. We are a substantial investor there, so we do believe that nuclear power can contribute to energy security and to a low-carbon future.

Mr. Larry Maguire: Thank you.

The Chair: Okay.

Ms. Lapointe, we're going to you. You have five minutes.

[*Translation*]

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

I want to welcome the new members of the committee.

[*English*]

My question is for Mr. Leach.

Mr. Leach, you've done extensive work in this field. I'd like to ask you about your work specifically with the Smart Prosperity Institute and the greening growth partnership.

The institute states—and this is a direct quote—that their vision is a “stronger, cleaner economy that builds a better future for all Canadians. We are dedicated to realizing a thriving economy, healthy environment, and high quality of life, achieved through decoupling environmental harm from economic success.”

In practical terms, I'd be interested in hearing from you what should be some best practices that could be adopted for realizing that vision with success.

Dr. Andrew Leach: Well, I certainly don't speak for Smart Prosperity on their grant as a co-investigator, but certainly, if you want their overall position, I'd encourage you to bring in some of their leadership team to speak.

On a more general question, I think the starting point for any economist is to make sure the costs of production, all of them, are internalized of those—and consumption as well—in making the decisions, so that when you decide to produce oil and gas, the emissions, the tailings and the environmental damage associated with that production are not passed on to someone else without you having to pay that freight, and that, as a consumer, those costs are reflected in the prices you pay.

Whether it's carbon pricing or whether it's the acid rain program types of policies that Mr. Angus talked about earlier, I believe, and that had a big impact in your region as well, I believe, those are all examples of things where we've put the cost of environmental damage into the business decision, and that, to me, is always the gateway to that type of linking environmental performance with economic prosperity.

• (1645)

Ms. Viviane Lapointe: Thank you.

Last September, just before the federal election, you wrote a blog that was entitled, “There's only one climate vote in this election and it's for the Liberals”. You said—again, this will be a direct quote, from your blog—that the “Trudeau government had to fight for every inch of their policy progress in the courts, in the election campaigns of 2015 and 2019, and almost every day in between. And, at every step, they were fighting *The Resistance*”—that was the term you used—the coalition of conservative provincial premiers and their allies in the opposition and Senate benches in Ottawa committed to stopping progress on climate policy in Canada.”

How do you see federal policy developing efficiently and effectively at the rate we need to see to meet climate goals when continually being challenged by, in your words, the resistance?

Dr. Andrew Leach: Well, I think what's more important is to focus on what you've done and on why I wrote that post, which was exactly as you said: We fought to get these policies into place and we have a full tool kit of what we need to meet Canada's emissions goal. What Canada needs right now is to refine those policies, to strengthen those policies and to get the remaining bits, clean fuels, for example, across the finish line.

The tenor I was taking today was more “we don't need to start another fight”. We don't need to come into another constitutionally fraught regulatory agenda when you already have the tools you need. If I were to look back at that blog post, that's where I would take it.

Ms. Viviane Lapointe: Thank you.

My next question is for Ms. Levin.

As a government, we're very conscious that individuals and families support themselves through Canada's oil and gas sector. We also know that we need to take urgent action on climate change. With that in mind, can you share with us your thoughts on how we can support a transition for energy workers while we work to meet emissions reduction goals?

Ms. Julia Levin (Senior Climate and Energy Program Manager, Environmental Defence Canada): Thank you for that question.

The energy transition is happening whether or not we bury our heads in the sand and listen to oil and gas companies. Our oil and gas will never be the last barrel standing. It's among the most carbon intensive and expensive. That transition is happening. The best thing we can do to support communities and workers is to be honest with them about what's going on and put in place plans, supports and a just transition strategy that the government commits to and that really makes sure that no one is left behind.

We're at a turning point where we can do what we did, for example, with the collapse of the cod industry, pretend it's not happening and not help those workers out, or we can put in place a plan today that brings all of those communities and workers alongside with us. You've heard on this panel from leaders like Gil McGowan from the Alberta Federation of Labour, who had really great suggestions on exactly how those just transition mechanisms need to be built out alongside this oil and gas emissions cap.

Ms. Viviane Lapointe: Thank you.

The Chair: Thank you.

Now we're going to Monsieur Simard.

You will have two and a half minutes.

[*Translation*]

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

I have a quick question for Mr. Marshall.

He said there were four things we could do to bring us closer to our emissions targets. He talked about calling the industry's bluff on

emissions intensity. I'd like him to talk more about what he means by the industry's bluff.

Mr. Dale Marshall: The industry has committed to achieving net-zero emissions by 2050. Achieving that target means reducing per-barrel emissions by 2030. You have to say to the industry:

[*English*]

“Show us the money.”

• (1650)

[*Translation*]

The industry needs to show the path it's going to take to achieve that target.

Mr. Leach said that per-barrel emissions intensity in Canada was on the rise. It has been for 30 years. The federal government has to do something to make sure those reductions materialize. It needs to happen on an absolute, not per-barrel, basis.

Mr. Mario Simard: A few weeks ago, Bruno Detuncq, a professor emeritus, appeared before the committee. He told us that, other than industry-funded studies, no meaningful research had been carried out on carbon capture strategies.

I don't mean to repeat Mr. Angus's quip, which was a good one, but would you say less carbon-intensive oil was equivalent to light cigarettes or diet poutine? Is it a chimera that gives the sector permission to carry on with oil production but in a more favourable light?

Along the same lines, the industry often cites indigenous communities, as though reducing production would be a huge hindrance to their economic development.

Talk about that, if you would.

Mr. Dale Marshall: The technology has not been shown to be worthwhile in the long term. These emissions come from oil and gas. The important thing to remember is that this covers only 20% of the oil sector's emissions. Only production emissions are captured. Even if the technology were perfect—which is far from being the case—we are talking about just 20% of the emissions that cause climate change. The other 80% is emitted when oil is burned in Canada or elsewhere. The lion's share of Canadian oil is burned outside the country.

We have alternatives: electric vehicles and renewable energy such as batteries. That is the path we should be taking. Carbon capture and storage might be significant for the steel industry, maybe. It might be significant for other industries, but we have zero-emission alternatives to oil and gas.

[*English*]

The Chair: That's great. Thank you.

Mr. Angus, it's over to you. You have two and a half minutes. Everybody else ran the clock a little bit, pushed it out, so I'll cut you a little bit of slack here.

Mr. Charlie Angus: Thank you, Mr. Chair.

Mr. Langlois-Bertrand, I'd like to ask you a question. When I read the Canada Energy Regulator's predictions for oil production in Canada, factoring in the carbon price—he's factoring in at least an extra one million barrels a year up to 2050—in one scenario, there will be either as much oil production as there is now or there will be just slightly less, so the Prime Minister's claim that we're going to have this major cut by 2030 doesn't really seem very credible to me.

Do you believe that carbon pricing alone is a credible way of ensuring that we meet our targets?

Dr. Simon Langlois-Bertrand: Thank you for the question.

I don't. I don't think it's enough. I don't think the industry is—at least according to our own modelling or the CER's modelling, which is completely different. The results are similar in that the lesson to take away is that industry is not responsive enough to the levels of pricing we're talking about. Whether or not that leads automatically to your considering a cap on emissions as the most effective tool is a question I'll leave to you, but certainly the pricing, as we know it now, including that scheduled to 2030, is not enough to take us anywhere near what's needed in terms of reductions here.

Mr. Charlie Angus: You talk about the industry not being responsive enough to meet the targets that everyone's agreed on, but they certainly are very responsive in getting audiences with the government. I think we counted now 6,800 meetings with the Liberal government. That's like four meetings a day. That's pretty spectacular backroom access. I have not heard anybody from the Liberals talk about an emissions cap since the Prime Minister made the statement, so I'd like to get a clear picture from you.

You say a 60% reduction in levels of oil and gas by 2030 would be what we would need. What would this emissions cap actually look like to ensure it was something credible to the Canadian people?

• (1655)

Dr. Simon Langlois-Bertrand: The figure I'm stating is from our last modelling effort. The idea here is to try to optimize what the lowest cost is to get us to the economy-wide 2030 target. In that exercise, we find that by far it's to focus, first and foremost, on the oil and gas sector.

Now, of course, there are other indirect costs. There's a lot of employment to take care of. Many other speakers and I have noted the need to take care of the communities and workers impacted by these measures, but the fact remains that if you don't do it that way, you have to do it some other way, so in other sectors, and that's going to be more expensive. So you can make a choice—

Mr. Charlie Angus: Just to finalize, because I've run out of time here—

Dr. Simon Langlois-Bertrand: Sure.

Mr. Charlie Angus: —and I'm pretty much looking for a yes or no.

What we're using right now is not going to get us to the 2030 promises that we made internationally if we're just using what we're using now.

Dr. Simon Langlois-Bertrand: No, I don't believe it will.

Mr. Charlie Angus: Thank you.

The Chair: We're now going to Mr. McLean for five minutes.

Mr. Greg McLean: Thank you, Mr. Chair.

Welcome to all the guests and all my new colleagues around the table. I'm glad we're discussing our shared goal of reducing emissions around the—

Mr. Charlie Angus: On a point of order, can I welcome my dear friend Mr. McLean to our committee? I, as a member of the New Democratic Party, haven't had a chance to do that. I don't want that coming off his time, but I want to welcome him to our committee.

The Chair: It's not. Thank you.

Mr. Greg McLean: Thank you to all my friends around the table, as we share our goal of actually getting to a cleaner emissions industry and economy across Canada. I'm glad everybody here is focused on that result.

Let me first of all congratulate Mr. Tarvydas on his company's being at the forefront of dealing with the capriciousness of foreign political short-term decisions, especially on Keystone XL, which would have lowered the emission intensity of all of the oil consumed in North America, which will now be displaced by foreign oil supplying the United States. That's one of the things we have to look at here: lowering the emissions for all the energy consumed in the world.

This brings me to my point. I'm going to ask Ms. Winter, because she's an economist and she and I speak somewhat the same language.

When you look at this foreign balance of trade, if you will, in Canada in 2020, the oil and gas industry accounted for about \$86 billion of foreign trade, primarily with the United States, of course. If we took that off, do you know offhand exactly how much the balance of trade would be in Canada?

Dr. Jennifer Winter: I'm sorry but I don't have that figure at hand.

Mr. Greg McLean: My apologies, but \$86 billion, about 15% of Canada's export value at this point in time, is in oil and gas. So that's \$86 billion versus \$5.5 billion 30 years ago. It is a very important part of our economy.

I'll contradict some of your witness friends around the table, including Mr. Leach, because we actually do have data from the Canadian government that show we've reduced carbon emissions from oil and gas emissions in the oil sands by 33% since 2000. Thirty-three per cent in 20 years is a pretty good reduction. We still have some carbon, obviously, in our oil and gas production, which we do need to reduce even further, and every one of us acknowledges that here.

In your estimation—

Dr. Andrew Leach: Mr. Chair, do I get an opportunity to respond?

Mr. Greg McLean: Ms. Winter, can you please answer the question I have about the...

Sorry, Mr. Chair, does Mr. Leach want to respond to something?

The Chair: It's your floor, so I'll let you decide who you're going to ask. If nobody picks it up, one of the other questioners may still do that, but it's your time.

Mr. Greg McLean: I like Ms. Winter's statement that a tonne of carbon is a tonne of carbon is a tonne of carbon, because I think it ties in with this government's statements all the time.

If we reduce a tonne of carbon out of the U.S. by replacing it with more environmental production from Canada, is that net benefit for the world?

Dr. Jennifer Winter: What matters overall is global reduction in emissions. Specific to Canada, what we're concerned about is meeting our targets rather than being concerned about the targets of other countries.

Mr. Greg McLean: Does that mean perhaps we've set the wrong targets, in that we should actually be reducing emissions intensity in Canada's oil production in order for it to displace more emissions-intensive fuel from elsewhere? Of the six and a half million barrels of oil per day equivalent, counting natural gas, that we produce in Canada, about three-quarters of it is exported.

• (1700)

Dr. Jennifer Winter: I wouldn't say that we're setting the wrong targets. The targets are what they are. I can comment on the most cost-effective way to meet those targets, which is to price emissions and—

Mr. Greg McLean: Okay. If greenhouse gas emissions are a worldwide problem and we are contributing to that by reducing our emissions by 33% per barrel of oil intensity in 20 years, and the rest of the world has increased... They've increased it because we've offshored production from Canada, to Asia primarily, because of two reasons, lower labour costs and lower energy costs. These are two of the most inflationary items that we face in an economy. That's what's happening. We're offshoring our production of hydrocarbons elsewhere for less environmentally friendly options.

Would you suggest that bringing it back onshore would be a better way to reduce carbon emissions?

Dr. Jennifer Winter: Our current policies, federally and provincially, are in place to mitigate emissions leakage, including from the oil and gas sector, and that's by providing output subsidies.

I can't speak to the relative emissions intensity of Canada's oil and gas versus other countries, but I can say that there are policies in place to prevent the leakage that you're concerned about.

Mr. Greg McLean: Mr. Keith, can I ask you a question?

The Chair: We're out of time. We're actually over time. Thank you.

Ms. Dabrusin, we're going over to you now, and you have five minutes on the clock.

Ms. Julie Dabrusin (Toronto—Danforth, Lib.): Thank you, Mr. Chair.

Because I believe there were some questions before, I wanted to make sure to clarify that Canada has not imported crude from Russia since 2019 and that, in fact, we are banning further imports. It's not as of today, because there are no imports today.

I want to start with Professor Winter.

I'm hearing from a whole bunch of witnesses who all want to row to the same place. We saw the IPCC report today. We know that we need to deal with responding to climate change and reducing emissions quickly.

I'm hearing from some people who have a contrary view to yours. They've been saying that an oil and gas cap is absolutely necessary to deal with that problem and to get us there.

If you were in my position, how do you respond to that? How do you make sense of where to go from there, because I have two very contrary points of view being presented today.

Dr. Jennifer Winter: We have the policies in place to meet our targets. It's a real question of stringency.

Yes, moving to \$170 Canadian per tonne may not allow Canada to reach its 2030 targets, and increasing the price after that may not allow Canada to reach its 2050 targets, but that doesn't mean there needs to be special treatment of the oil and gas sector. There can be an economy-wide increase in the stringency of the emissions price to create that incentive for emissions reduction.

There can also be a reduction in the output subsidies provided to sectors designated as emissions intensive and trade exposed, and that increases their costs, further providing emissions reduction incentives.

The other option is broadening the base of what is subject to an emissions price by removing special exemptions for specific economic activities.

Ms. Julie Dabrusin: I have a quick question, because I would like to get to Professor Leach right after this.

Are border carbon adjustments an essential piece if we're changing some of the pieces to make them more stringent, as you've said?

• (1705)

Dr. Jennifer Winter: Border carbon adjustments are one way to address competitiveness concerns. That's by levelling the playing field between domestic production of goods and services and the imports from other countries. However, it does not protect the domestic, the productions exports to other countries, so it doesn't address that aspect of competitiveness.

Ms. Julie Dabrusin: Thank you.

Professor Leach, this is essentially the same question. How do I deal with this challenge of some people saying that an oil and gas cap is the only way when you're saying that in fact we should rely on existing programs?

Dr. Andrew Leach: I don't think there's a lot of contradiction there. I don't think anyone is saying that it's the only way. I think everybody seems to be saying that our existing set of policies is not turned to the appropriate level to meet our new goals.

I think that includes the current projections that were in the previous budget, before this one, which said that we were on track to meet our Paris goals and not our Glasgow goals. I don't think there's a contradiction in anyone saying that we need more stringent use of something to meet our policies; I'm just saying that this is not what I would choose.

Ms. Julie Dabrusin: What would you do to make it more stringent? I have 40 seconds.

Dr. Andrew Leach: I think you can do a number of things. You have the carbon pricing regime, which you can apply at the border and you could apply to exports. You could use the clean fuel standard to impose a greater demand on the oil and gas sector, if that's what you want, on sectors of the oil and gas sector.

You have all the mechanisms in hand already to drive whatever outcomes you want to see and, of course, the tax code policies that you've already talked about in the previous budget, on carbon capture and storage, are an option. You have energy policies, so you have the tools in your tool kit. We don't need to start talking about and developing a new tool.

The Chair: Thank you.

I'm looking at the time. We have a bit of committee business that we need to do. We can do it in public afterwards. We're going to need a few minutes. I think we can get through four rounds of questions with five minutes each for the Conservatives and the Liberals and two and a half minutes for Monsieur Simard and Mr. Angus, if that's okay. Then we'll probably end at that point.

We have another 15 minutes for our witnesses if you're good to go.

We'll start right away with Mr. Maguire for five minutes.

Mr. Larry Maguire: Thank you, Mr. Chair.

I just wanted to go back again as well. I've mentioned in previous committees my enthusiasm for technology in our industry to be able to develop systems through the private sector and universities and colleges to reduce greenhouse gases around the world and, obviously, for the 1.8% or 1.6% we have here in Canada, to do everything we can to get that to zero as well.

There are concerns from my colleagues as well, in that if we did hit zero, the 2% would be very easy to replace by the types of oil that have much higher carbon content than what we have in low-carbon content in Canada.

I want to ask Mr. Tarvydas this, and maybe I'll have time for others. In regard to the study we're doing in that area, it's on an emissions cap. Some have said they want to see a production cap, but the witnesses we've had so far have all agreed that this would be an emissions cap, and that's good for the world.

I want to hear your thoughts in regard to the use of technology around the world—we have the expertise and it's already being done here in Canada—on how that would play out if we could actually export the technology around the world and get greenhouse gas emissions down. A prime example is the coal industry, which some mentioned earlier. We already have systems in Canada that will scrub it as clean as liquid natural gas, basically, but it's very costly. Can you respond to that first? I know that you mentioned the nuclear advantage and everything, but I'd like to have your opinion on that.

Mr. Robert Tarvydas: Mr. Chair, I think Canada is relatively uniquely positioned to further the development of certain technologies related to carbon reduction. CCUS is one, and direct capture from the atmosphere is another one. We do have a pretty active energy industry in this country. I think we have the opportunity to develop these technologies.

Of course, the technologies wouldn't be limited to just Canada. They could be used anywhere else in the world where somebody wanted to reduce the amount of carbon out there. This would be one area in which, potentially, Canada could take a leading role and actually export technology, potentially to the benefit of the Canadian economy.

• (1710)

Mr. Larry Maguire: What impact would putting a limit on production in Canada have for our existing oil and gas industry?

Mr. Robert Tarvydas: Well, as I said in my opening statement, I think that putting a production cap in place is certainly possible. As I think almost everyone around the table here has been saying, that is not the goal. The goal is to have an emissions cap. The production cap is potentially the most draconian way of getting there. It would inherently reduce the amount of emissions that go with it, but it would obviously also then decrease the benefits of adopting some of these technologies. Using something like carbon capture and storage does allow you to continue to produce a certain amount of energy at the same time you are lowering or eliminating emissions.

Mr. Larry Maguire: Thank you.

Ms. Winter, I wonder if I could get your opinion here, as well, on what I'm going to say and whether or not I'm on the right track. It's important that we look at decreasing greenhouse gas emissions around the world, but that being said, the production could still increase by 2050, because we need to gauge what the energy needs of the world will be at that time. As my colleague has said, greenhouse gas emissions have gone down for our own oil content, but we could still have more production 10 years from now than what we have today but still with a smaller amount of emissions around the world.

Can you give us your thoughts on that?

Dr. Jennifer Winter: Conditional on substantial emissions improvements in oil and gas production, yes, there is absolutely the possibility of increased production and lower total emissions. It's also conditional on emissions intensity improving by more than production increases.

Mr. Larry Maguire: Thank you.

Would anyone else like to chime in on that as far as the overall world levels of production or usage of energy in the future go?

The Chair: Ms. Levin has her hand up.

Ms. Julia Levin: Thank you.

As has been said many times, the problem is the carbon embodied in the product. I'd like to disagree with the last witness, Professor Winter. If we increase the production of oil and gas, that will increase the amount of emissions in the atmosphere. Even, let's say, if we use carbon capture and storage—and again there was a question earlier about how much the industry wants—the industry wants \$50 billion from the government to pay for carbon capture and storage. That's why 400 of Canada's leading scientists and economists sent a letter to Minister Freeland saying that this is a bad use. A tax credit towards locking in a sector that is incompatible with a climate-safe future would be a terrible use of public dollars.

Even by using carbon capture and storage, we can actually tackle only between 3% and 9% of the carbon associated with the life cycle of oil and gas. There's no way we can talk honestly about increasing production if we want a livable future.

The Chair: Unfortunately, we're more than a minute over on this one. We need to keep going.

I know Mr. Leach's hand was up, and I saw another hand. We won't be able to go to you now.

I will move to Ms. Jones, who will have five minutes. She can either pick it up or move on to her own round of questioning.

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

Thank you to all the panellists for their presentations today. It's very interesting, not unlike several of the meetings we've had as a part of this study, where we've heard support directly for carbon pricing and from others for cap and trade, from some with regard to production and from some feeling that we need to focus on carbon and not on production. We keep hearing different messages from different panellists.

When Mr. Angus was questioning Mr. Marshall, Mr. Marshall indicated that we could not reach the targets we've set by 2050. I'd like to ask Mr. Keith in particular, because we haven't heard a lot from him so far in this panel, if he shares that perspective, and if he shares the perspective that we need to cap at 2019 levels but keep reducing until we get below 2005 levels.

If there is any other panellist who would like to respond to that, I'm interested in knowing if you share that view or if you have a different view or a more optimistic view about where we're going and the direction we're headed in, but I'll certainly start with you, Mr. Keith.

• (1715)

Dr. David Keith: Predicting energy futures is very hard. If you look at the quality of the historical projections, they were extremely inaccurate. My personal judgment is that the chance of meeting those targets is very low, but I don't actually have a lot of confidence in my own judgment. It's also important to say that the targets are fundamentally political. They don't come from some cost-benefit trade-off. They're not actually what scientists say, and I'm one of the scientists.

It's also important to say that economists do not actually say that carbon pricing is always the most efficient thing. That is not what careful econs say, because it is only true in a world where technology does not respond to prices. If you have an economic model in which technology is what we call exogenous—doesn't respond to prices—then just going up from the lowest price to the highest is the right thing. But in the world we actually live in, which is much more uncertain than the world of those models, it is not necessarily true that carbon pricing is the most effective thing, and maybe in some cases and not in others.

Ms. Yvonne Jones: Thank you.

I don't know if there is anyone else who is really pressed about sharing an opinion on that. I would like to take one more response if there is one. If not, I'll move on to my other question.

Dr. David Keith: On this topic?

Ms. Yvonne Jones: Yes.

Dr. David Keith: On the cap, I would prefer a strong cap for reasons that I said are really reasons of industrial and social policy in Canada, to reduce the chance of a crash. That is, to be clear, that is a separate policy objective from climate. It's related, but separate.

I'll also take the time to say that I happen to be the founder of a company in Canada that does direct air capture, so I'm pretty involved. I think there are ways it could be very useful, but I don't see a scenario, as our witness from TC Energy does, in which this is just used to compensate for emissions from oil in the future. If you think about this under a roughly even carbon pricing scenario, that is not a world that happens.

Ms. Yvonne Jones: Okay.

I'd like to move on to Ms. Levin on a question.

Obviously, whatever we do here as a government is going to have a significant impact on workers and families and on economies in various provinces, especially in the Prairies right now, where we're hearing a lot about this. I know it's easy to say that we have to get behind the transition. I think we're all behind it. I think the majority of Canadians are very much behind this and want to see real results; however, there is a serious issue here that affects the economy as well and affects workers and their families.

You suggested that we have to create those opportunities. What are those opportunities? What would you be proposing today to those provinces and those thousands of workers who are going to be impacted? That is a responsibility that our government has to look at, as well as the climate piece. We want to do both, and we want to do both well.

Ms. Julia Levin: I think it's incredibly important that we make sure the way we are putting in climate policies brings workers alongside. We know that investments in the fossil fuel sector have the lowest job creation potential of any sector of the economy.

That \$50 billion to oil and gas would result in so many safer jobs, good-paying jobs, if we took that money and invested it in the renewable energy sector, in energy efficiency and in the clean growth economy, which have a future in a carbon-constrained world, whereas, as I said before, oil and gas are on the way out, as we see car companies committing to go fully electric. This is the sector that is the sector of yesterday.

We decide whether we want to equip our communities to succeed in the parts of the economy that actually have a future and bring those workers along, or we're stuck in the past, and it's workers who will suffer as a consequence.

• (1720)

The Chair: We're out of time on this round.

We'll go to Monsieur Simard for his final two and a half minutes.

[*Translation*]

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

Just like with Smarties, I saved the best for last.

I have a quick question for Mr. Langlois-Bertrand. In your opening statement, you said that costs and technological constraints would make it difficult to achieve our emission reduction targets, especially in the oil and gas sector. You also said that sector should be putting forth the most effort. I want to point out that the Minister of Environment and Climate Change recently stated his intention to phase out fossil fuel subsidies by 2023, calling them inefficient.

As we know, the devil is in the details. What, then, makes a subsidy efficient versus inefficient? I don't want to put words in the minister's mouth, but my sense is that Canada is about to provide financial support for strategies such as green hydrogen production and carbon capture. However, there is a basic principle when it comes to environmental measures, the polluter pays or bonus-malus. Therefore, activities with a low carbon footprint should be rewarded and those with a large carbon footprint should be discouraged. In light of that, could you comment on federal government investments in hydrogen and carbon capture strategies?

Dr. Simon Langlois-Bertrand: Thank you for your question.

You have to be careful when it comes to carbon capture. Indeed, short-term investments can seem appealing. I'm going to refer to a few of the statements made earlier. The idea is to achieve net-zero emissions by 2050. Technology will get better, but right now, that means a staggering amount of gas already has to be captured, unless we stop all agricultural, industrial and other such activity. If every sector starts capturing carbon instead of reducing emissions, despite being difficult in the short term, the future of carbon storage is likely to be riddled with complications. The quantities will become impossible to manage, mainly because we have little experience in storing huge quantities of carbon.

On the hydrogen front, the future is very uncertain, in Canada and elsewhere. Many companies and countries are choosing to go in another direction, while others continue down this path. It's tough for the government to make a choice at this stage in the game. It needs to move forward on a gradual and short-term basis. It's not an easy solution.

[*English*]

The Chair: Thank you.

Mr. Angus, you get the last two and a half minutes.

[*Translation*]

Mr. Charlie Angus: Thank you, Mr. Chair.

I would like to give my friend and Green Party member, Mr. Morrice, an opportunity to ask his questions.

[*English*]

Mr. Mike Morrice (Kitchener Centre, GP): Thank you, Mr. Angus, and thank you, Chair.

I think it's important that we're having this conversation today, the day on which the UN Secretary-General, speaking of the most recent IPCC report, said—his words—“This abdication of leadership is criminal. The world's biggest polluters are guilty of arson of our only home.”

Mr. Marshall—and Ms. Levin, if you'd like to add to it—you said “call the industry's bluff on emissions intensity”. I think it's important that we do away with myths and stick with facts in this committee. I know you've spoken with this committee before. Can you share the fact of Canada's emissions intensity as compared with global peers and how it has risen over recent years?

Mr. Dale Marshall: There have been a number of different academic research papers written about the carbon intensity of different sources of oil. Last time I was at the committee, I mentioned that Masnadi et al. in 2018 had found that Canada's oil was the fourth dirtiest on the planet out of 50 major producing regions.

I had hoped Dr. Leach would have been able to weigh in when he was contradicted. The emissions intensity of Canadian oil has gotten worse over the last 30 years. That's because we've moved from conventional oil to more oil sands, and in the oil sands we've moved from oil sands mines to in situ.

Canada's not going to solve the climate change problem by exporting more oil. Our oil is dirty, and it's getting worse.

Mr. Mike Morrice: Thank you, Mr. Marshall.

Let's then work at what we can do together. The reality is that as we pursue more oil, it's only going to get dirtier across the country. What we can do is actually invest in people.

Ms. Levin, I wonder if you'd like to close by sharing with us what we can do, if we avoid the loopholes being pushed by oil and gas, to actually invest in workers now.

• (1725)

Ms. Julia Levin: I'm going to defer to my colleague Mr. Marshall to jump in.

Mr. Dale Marshall: I'm going to jump in on that, because I commissioned and helped write a report on just transition that was done by Jim Stanford, a labour economist.

There are a number of ways that you can put in place a just transition strategy for workers and communities. It involves funds for early retirement, funds for training programs for workers and relocation funds for communities. It means community economic development: looking at specific places to see what resources are there in terms of workforce. It means a lot of money, but it's the kind of money that allows communities and workers to be supported as we transition away from fossil fuels, rather than handing over more and more money to the oil and gas industry to solve 20% of their emissions problem.

Mr. Mike Morrice: Thank you.

The Chair: We're out of time. As I said, we have some committee business.

Before we do that, thank you to the witnesses who have joined us this afternoon. We've had lots of great discussion. There is a lot more to consider as we work on pulling together our report on the oil and gas emissions cap.

At this point, witnesses, if you would like to drop off the call, you're welcome to do that. If you have additional thoughts, please send those to us through the clerk.

For the members, both online and in the room, if you could stay with us, we have some brief business to deal with. We need to elect a new vice-chair, based on the membership of the Conservatives.

To do that, I need to turn the chair over to the clerk, who will oversee that part of the process.

The Clerk of the Committee (Ms. Hilary Jane Powell): Thank you very much, Mr. Chair.

We are going to proceed with the election of first vice-chair.

Pursuant to Standing Order 106(2), the first vice-chair must be a member of the official opposition.

I'm now prepared to receive motions for the first vice-chair.

Mr. McLean.

Mr. Greg McLean: Mr. Chair and Clerk, may I please nominate Larry Maguire.

The Clerk: It has been moved by Mr. McLean that Mr. Larry Maguire be elected as first vice-chair of the committee.

(Motion agreed to)

The Clerk: I declare the motion carried and Mr. Larry Maguire duly elected as first vice-chair of the committee.

Congratulations.

The Chair: Welcome, Mr. Maguire.

I understand that you have a question before we adjourn today.

Mr. Larry Maguire: It's a question for the committee, Mr. Chair. I don't think it's very controversial.

With what's going on in the world right now, I wonder if we could ask the committee for their co-operation in having our Natural Resources people provide a list of all the natural resources we are either exporting to Russia or that Russia is exporting to us. Notwithstanding the discussion we had earlier, I think it would be pertinent for us to know exactly how things shape up in the world with regard to exports with Russia, and their involvement with Ukraine right now.

I wonder if we could ask the department to do that as a motion from our committee.

The Chair: Mr. Angus.

Mr. Charlie Angus: I certainly think it's really important, as for anything our committee does, that we have facts. We're hearing all kinds of contradictory opinions. I would like facts. I work with facts. If we can find that out for the last six, seven, 10 years, having a period of time to look at would be very helpful. If there are particular companies that we are dealing with, maybe we'd want to know that too.

If we can get those facts, then we can decide what we would do as a committee.

The Chair: Mr. Maloney.

Mr. James Maloney (Etobicoke—Lakeshore, Lib.): I like that suggestion from Mr. Maguire. That information would be particularly helpful.

Can we get a time frame perhaps, and what that exchange would look like?

Mr. Larry Maguire: Well, I'd give it a week, if that's a reasonable time frame, maybe by the end of the week, for next Monday's meeting.

The Chair: Mr. Maguire, are you moving an official motion? If you are, we'll ask you to put that out so that our clerk can officially record it. Then we can put that to the department.

Mr. Larry Maguire: I'll come up with one.

I would include Ukraine in that as well, and Russia, so that we can know their situation for imports and exports, if that's the will of the committee.

• (1730)

The Chair: Are there any other questions or debate?

Please go ahead, Monsieur Simard.

[*Translation*]

Mr. Mario Simard: I have no objections to looking at oil exports from Russia and Ukraine, but I wouldn't want that discussion to distract the committee from its current study.

I have no objections to the committee requesting the information. The more we know, the better off we are.

[*English*]

The Chair: Mr. Angus, please go ahead.

Mr. Charlie Angus: I'd also say the timeline is important because, if this information is important, the sooner we act, the better.

I'd like to have something by next Monday. We can carve out time and then discuss whether it's an issue for us or not.

The Chair: Is everybody good with that?

Ms. Dabrusin, go ahead.

Ms. Julie Dabrusin: I think that the one-week timeline is fair. I'm good with that.

I'm wondering if it could be reread. What exactly was the motion? But I'm agreeable.

The Chair: Mr. Maguire, do you wish to add in the "one week"?

Ms. Jones, go ahead.

Ms. Yvonne Jones: I don't know if we should put in the timeline. I think we want to get it as quickly as possible. I don't know how long it would take the department and the Library of Parliament to put the document together.

Mr. James Maloney: I agree with that, Mr. Chair. It may be sooner, but I don't want to create an artificial deadline, and then somebody says they're not complying. We all want the information.

The Chair: Mr. McLean, please go ahead.

Mr. Greg McLean: Mr. Chair, I would extend it to the finished goods produced with Russian commodities, which find their way

directly into Canada thereafter, such as oil and gas supplied to west coast American refineries, where the finished product ends up in Canada.

The Chair: Mr. Angus, go ahead.

Mr. Charlie Angus: I don't know now what I'm dealing with. If the question was about Russian oil and gas exports to Canada, I'm in agreement. If we're going to go further and ask for all of this, that and the other, I'm not necessarily keen on that, because that's going to take more time.

I'm very keen on a hard date. I want to know... If we're dealing with the crisis that we're dealing with, and there is reason for us to make a statement on this, then the sooner we know, the better. I'm not all that keen on adding a whole bunch of other stuff, because that puts the date back, possibly, and puts more work on us.

I think we have a nice, simple message. I would like to go with that, and I'd like it to say we should have it by next Monday, if possible. We understand if the Library of Parliament can't, but I imagine they can get us that information.

The Chair: I would suggest that Mr. Maguire give us his motion and we look at it. If there are any amendments, we can entertain those at that point.

Mr. Maguire, we'll put it to you.

Mr. Larry Maguire: I move that the committee request that the Natural Resources department provide our natural resources committee with facts on imports and exports of natural resources from Russia and Ukraine and from Canada to Russia and Ukraine by our March 7 meeting.

I could add "if possible".

Ms. Julie Dabrusin: Just to clarify, with "and Ukraine", are you looking for "from Russia" or "Russia and Ukraine"?

Mr. Larry Maguire: I said "Russia and Ukraine".

Ms. Julie Dabrusin: Okay.

Mr. Larry Maguire: It's "from Russia and Ukraine and from Canada to Russia and Ukraine".

I can add "if possible" at the end of it.

The Chair: That's the motion.

Please go ahead, Mr. Maloney.

Mr. James Maloney: I don't want to get too hung up on this deadline idea. Keep in mind there is no meeting on March 7 and we're not actually going to be meeting for a few weeks now.

Mr. Larry Maguire: We can take out the word "meeting".

The Chair: We have Mr. Angus, Mr. Simard and Ms. Dabrusin.

Mr. Charlie Angus: I thought we were looking at oil and gas, because this is what we're studying in the committee. I'm not sure about all natural resources, because I don't know...manganese.... There may be a whole bunch of stuff, but that might take more effort. I wanted a nice, clean hit here.

I'm not arguing. I just don't know what other commodities we trade with in Russia and Ukraine. There may be multiple issues, but certainly oil and gas. That's what's been raised, so that was what I was focused on.

The Chair: I have Mr. Simard, Ms. Dabrusin and Mr. McLean.

[*Translation*]

Mr. Mario Simard: I'm not sure whether someone mentioned this already, but I think we need a longer reference period. To draw a decent comparison and get a more meaningful picture, I think we need to look at oil and gas imports from Russia and Ukraine over a period of 15 years or so. I think we need a slightly longer reference period, so something like 15 years might do the trick.

• (1735)

[*English*]

The Chair: Ms. Dabrusin, please go ahead.

Ms. Julie Dabrusin: I will complicate and simplify at the same time.

I agree with the time frame idea. I also agree with Mr. Angus, though, about just keeping it to oil and gas. If you're trying to get this information within a week, it will be more complicated if you draw it across anything and everything that counts as a natural resource from Canada.

I will suggest that we add one more country to that list, which would be Belarus.

The Chair: Okay.

Mr. McLean, and then we're going to have to sort out the initial motion and amendments.

Mr. Greg McLean: To my colleagues, oil and gas isn't the only resource that is going through the roof right now as far as commodity pricing goes. There are a number of resources that we need to make sure we're cognizant of, especially if we're considering any kind of sanctions against Russia. We need to have that fully on our table both from an import and export perspective.

I assure my colleagues these numbers are readily available. All we have to do is ask for them from the Department of Foreign Affairs. They will be available very quickly on both a volume basis and a dollars basis.

I don't disagree with the period of time, although I think the most relevant period of time is the most recent past. The last year, I think, would probably be the one we should look at the most.

The Chair: Mr. Maguire, I'm going to put it to you, based on the discussion, to give us your final version of the motion, which we will look at to have any amendments put forward. Hopefully we can wind this up quickly during this meeting so we can get into the subcommittee meeting.

Mr. Larry Maguire: I only mentioned natural resources in the bigger picture because I was most interested in looking at what

happens in world trade beyond the oil and gas industry here. My thoughts were to include mining and forestry. Those would be the only three that we would look at. I think they are the major ones. There might be ones that my colleagues have mentioned, trace minerals and those sorts of things. I'm not sure how impactful that would be for us. I think those three major ones that we deal with in this committee the most would be the ones I would suggest we ask for that information.

I agree it is readily available. It could be done by tomorrow if we demanded it, but we're not going to demand it. That would be why I left that motion pretty much the way I have it.

The Chair: Based on that discussion, are we willing to accept the motion as Mr. Maguire has put forward?

Mr. Larry Maguire: Do you want me to define mining, forestry, and oil and gas?

Mr. Charlie Angus: Natural resources is it.

Mr. Larry Maguire: Natural resources, yes. They'll have a list of them anyway.

The Chair: Ms. Dabrusin.

Ms. Julie Dabrusin: I would like to suggest an amendment to add Belarus.

The Chair: Are there any comments on the amendment?

Mr. Larry Maguire: Okay.

The Chair: Otherwise, are all in favour of Belarus?

Mr. James Maloney: Sorry.

Where did we land on Mr. Simard's suggestion of 15 years? I think that's important.

Mr. Larry Maguire: I didn't.

I'm not hung up on the number of years, if it's anywhere from one year to 10 years.

Is that fine, Mr. Simard?

Even five would be fine with me. Just the most recent past is what we're interested in.

The Chair: Let's deal with the Belarus amendment. Then we'll do the time frame amendment. Then we'll do the motion.

Mr. Charlie Angus: Five years.

The Chair: Is everybody fine with adding Belarus?

(Amendment agreed to [*See Minutes of Proceedings*])

Mr. Larry Maguire: I agree with my colleague from the NDP who suggested five years.

[*Translation*]

Mr. Mario Simard: I would do it over a period longer than five years. I don't think that would delay things. For comparison purposes, a period focusing on two different governments could be informative.

[*English*]

Mr. Larry Maguire: I'm not getting the translation.

The Chair: We didn't get the translation.

[*Translation*]

Mr. Mario Simard: Is it working now?

[*English*]

The Chair: No, I'm still not getting it.

Are you guys getting it?

[*Translation*]

Mr. Mario Simard: I was saying that I would do it over a period longer than five years, just for comparison's sake.

Is it working? The interpretation isn't working.

[*English*]

Mr. Larry Maguire: Ten years?

[*Translation*]

Mr. Mario Simard: Ten years could work.

[*English*]

The Chair: Is everybody good with 10 years?

Mr. Larry Maguire: Yes.

The Chair: All in favour?

(Subamendment agreed to [*See Minutes of Proceedings*])

(Amendment as amended agreed to [*See Minutes of Proceedings*])

The Chair: Now we're on the amended motion.

● (1740)

Mr. Larry Maguire: It reads:

That the Department of Natural Resources provide the committee with the volumes and values of imports and exports of natural resources to and from Canada from Russia, Ukraine and Belarus for the last 10 years by March 7, 2022.

The Chair: All in favour?

(Motion as amended agreed to [*See Minutes of Proceedings*])

The Chair: Thank you, everybody. With that, we're now adjourned.

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